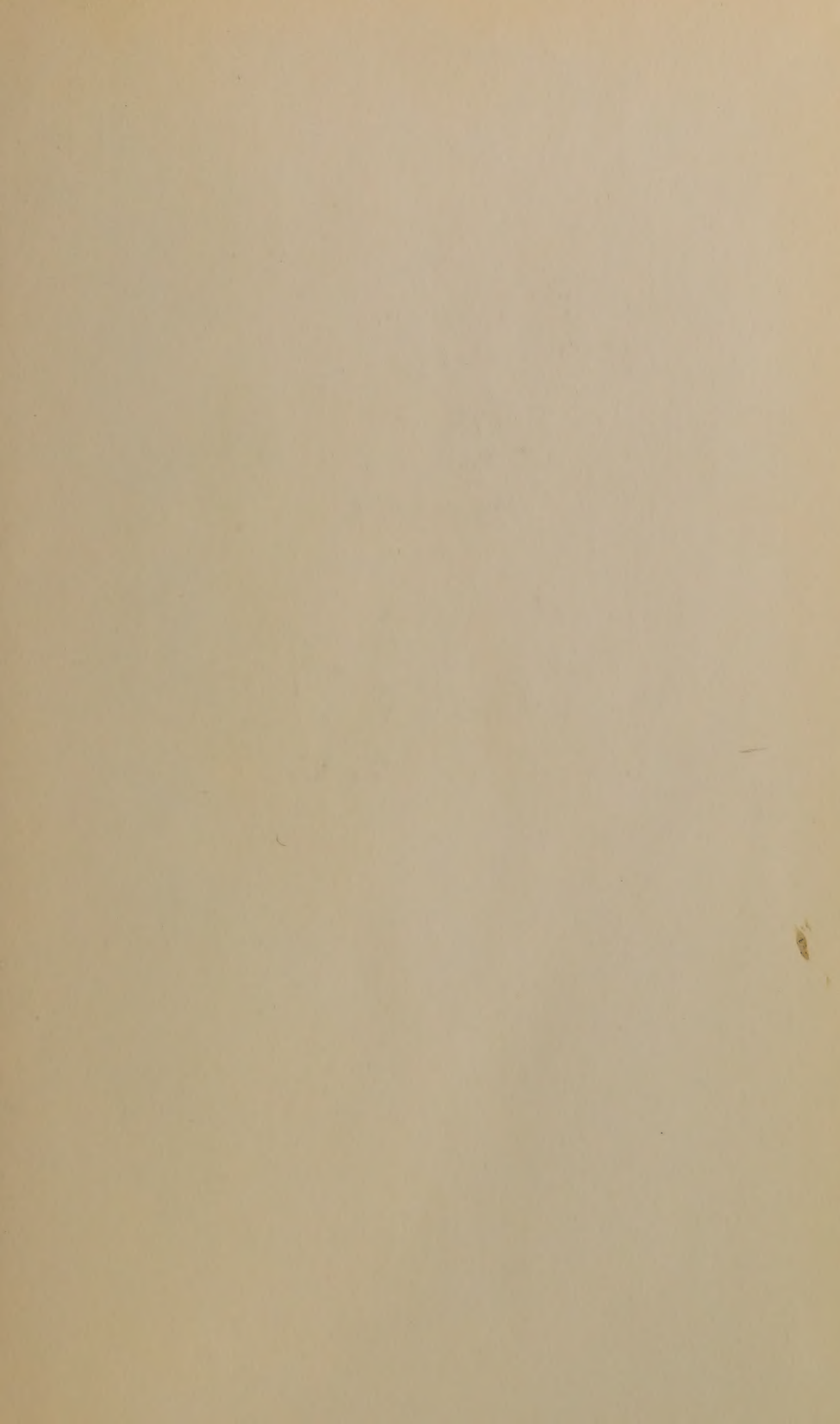
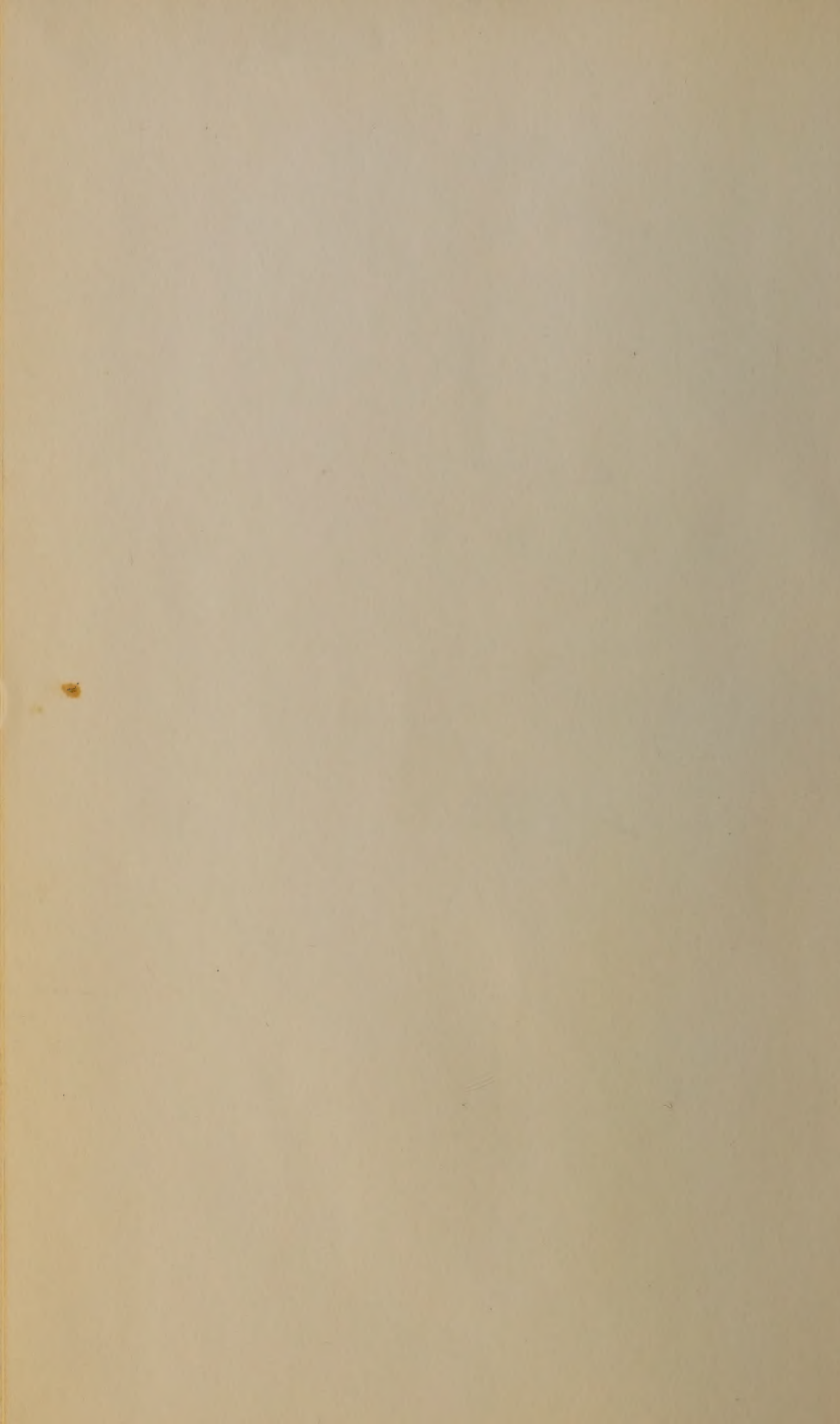


THE J. PAUL GETTY MUSEUM LIBRARY





THE JOURNAL OF THE ARCHAEOLOGICAL
INSTITUTE OF AMERICA

Archaeological Institute of America

AMERICAN
JOURNAL OF ARCHAEOLOGY

Second Series

THE JOURNAL OF THE ARCHAEOLOGICAL
INSTITUTE OF AMERICA

VOLUME XXIV

1920

PERIOD.

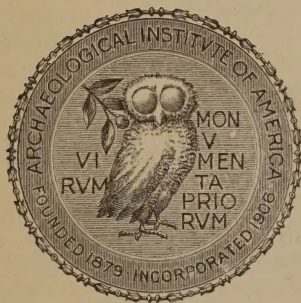
N

5320

ASI

n.s.

v. 24



CONCORD, N. H.

PUBLISHED FOR THE INSTITUTE BY

The Rumford Press

NEW YORK: THE MACMILLAN COMPANY

LONDON: MACMILLAN & CO., LTD.

American Journal of Archaeology

SECOND SERIES

THE JOURNAL OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA

Vol. XXIV, 1920

Editorial Board

Editor-in-Chief

WILLIAM NICKERSON BATES

Professor in the University of Pennsylvania

Associate Editors

GEORGE H. CHASE (*for the American School at Athens*),
Professor in Harvard University.

ALLAN MARQUAND (*for Mediaeval and Renaissance Archaeology*),
Professor in Princeton University.

FRANK G. SPECK (*for American Archaeology*)
Professor in the University of Pennsylvania.

SIDNEY N. DEANE,
Professor in Smith College.

Honorary Editors

JAMES C. EGBERT (*President of the Institute*),
Professor in Columbia University.

EDWARD CAPPS (*Chairman of the Managing Committee of the School at Athens*),
Professor in Princeton University.

JAMES A. MONTGOMERY (*Chairman of the Managing Committee of the School in Jerusalem*),
Professor in the University of Pennsylvania.

Editorial Contributors

Professor CARROLL N. BROWN,
Classical Archaeology.

Miss MARY H. BUCKINGHAM,
Classical Archaeology.

Dr. THEODORE A. BUENGER,
Classical Archaeology.

Professor HAROLD R. HASTINGS,
Classical Archaeology.

Professor ELMER T. MERRILL,
Numismatics.

Professor LEWIS B. PATON,
Oriental Archaeology.

Professor ARTHUR S. PEASE,
Classical Archaeology.

Professor SAMUEL BALL PLATNER,
Roman Archaeology.

Professor JOHN C. ROLFE,
Roman Archaeology.

Dr. JOHN SHAPLEY,
Christian and Mediaeval Archaeology.

Professor ARTHUR L. WHEELER,
Numismatics.

CONTENTS

	PAGE
AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS:	
Corinth in Prehistoric Times.—CARL W. BLEGEN	1
Supplementary Note to A. J. A. XXIV, 1920, pp. 1-3	
—C. W. BLEGEN	274
ARCHAEOLOGICAL INSTITUTE OF AMERICA:	
Two Heads of Negresses.—CHARLES T. SELTMAN	14
Archaic Antefixes from Cervetri in the University Museum, Philadelphia, Pa.—STEPHEN BLEECKER LUCE	27
The Theory of Gothic Architecture and the Effect of Shellfire at Rheims and Soissons.—ROGER GILMAN	37
The Carmelite Madonna of Pietro Lorenzetti.—ERNEST T. DEWALD	73
Two Romanesque Sculptures in France by Italian Masters.	
—A. KINGSLEY PORTER	121
Unpublished Documents relating to the Will of Andrea della Robbia (Plate I).—RUFUS G. MATHER	136
Sappho and the "Leucadian Leap."—C. DENSMORE CURTIS	146
The Mediaeval History of the Double-Axe Motif.	
—ROBERT B. O'CONNOR	151
Note on the Double-Axe Motif.—C. R. MOREY	171
Spanish Ivories of the XI and XII Centuries in the Pierpont Morgan Collection.—JOSEPH BRECK	217
Centauiromachy and Amazonomachy in Greek Art: The Reasons for their Popularity.—FRANK B. TARBELL	226
Contributions of Greek Art to the Medusa Myth.—LILLIAN M. WILSON	232
The Nature of the Lares and their Representation in Roman Art.	
—MARGARET C. WAITES	241
Further Note on the Eruption of Vesuvius in 79 A. D.	
—ELMER TRUESDELL MERRILL	262
A New Document for the Ceppo Hospital Medallions.	
—ALLAN MARQUAND	269
Notes on "Lost" Vases.—STEPHEN BLEECKER LUCE	271
Editorial Changes	273
A Marble Head from Rhodes (Plates II-III).	
—THEODORE LESLIE SHEAR	313
Primitive Aegean Roofs.—LEICESTER B. HOLLAND	323
Documents Relating to the Will of Luca di Simone della Robbia.	
—RUFUS G. MATHER	342
Etruscan Shell-Antefixes in the University Museum, Philadelphia.	
—STEPHEN BLEECKER LUCE	352
ARCHAEOLOGICAL NEWS AND DISCUSSIONS (July 1919-June 1920).	
—WILLIAM N. BATES, <i>Editor</i>	
NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS . . 85, 291	
<i>Oriental and Classical Archaeology</i> :—General and Miscellaneous, 85;	
Egypt, 291; Syria and Palestine, 90, 291; Asia Minor, 90, 292;	

Greece, 91, 292; Italy, 97, 296; Spain, 302; France, 100, 303; Germany, 303; Great Britain and Ireland, 100, 304; Northern Africa, 101, 304; United States, 102, 305.

Early Christian, Byzantine, Mediaeval, and Renaissance Art:—Egypt, 104; Italy, 105, 305; Spain, 307; Portugal, 109; France, 110, 308; Switzerland, 110; Holland, 309; Germany, 111, 309; Hungary, 113; Poland, 113; Sweden, 114; Great Britain, 114, 309; United States, 114, 310.

American Archaeology:—General and Miscellaneous, 117, 312.

SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PERIODICALS

173, 371

Oriental and Classical Archaeology:—General and Miscellaneous, 173, 371; Egypt, 174, 374; Babylonia, Assyria and Persia, 174, 374; Syria and Palestine, 175, 376; Asia Minor, 377; Greece, 175, 378; (Architecture, 175, 378; Sculpture, 177, 379; Vases and Painting, 180, 381; Inscriptions, 181, 382; Coins, 383; General and Miscellaneous, 182, 384); Italy, 185, 386; (Architecture, 185; Sculpture, 386; Vases, 387; Inscriptions, 387; Coins, 185, 388; General and Miscellaneous, 186, 389); France, 186, 390; Switzerland, 187; Great Britain and Ireland, 391; Northern Africa, 188, 391.

Early Christian, Byzantine and Mediaeval Art:—General and Miscellaneous, 188, 392; Italy, 193, 393; Spain, 195, 394; France, 195, 395; Belgium and Holland, 196, 395; Germany, 196, 396; Great Britain, 396.

Renaissance Art:—General and Miscellaneous, 197; Italy, 198, 396; Spain, 400; France, 401; Belgium and Holland, 207, 401; Germany, 209; Great Britain, 213, 402.

American Archaeology:—General and Miscellaneous, 213, 402.

BIBLIOGRAPHY OF ARCHAEOLOGICAL BOOKS: 1919.

—WILLIAM N. BATES, *Editor* 275

General and Miscellaneous 275

Egyptian Archaeology 276

Oriental Archaeology 277

Classical Archaeology 279

Greek and Roman 279

Greek, 280 (I, General and Miscellaneous, 280; II, Sculpture, 280; III, Vases, 280; IV, Inscriptions, 280).

Roman, 280 (I, General and Miscellaneous, 280; II, Architecture, 281; III, Sculpture, 281; IV, Inscriptions, 281).

Christian Art 281

(I, General and Miscellaneous, 281; II, Early Christian, Byzantine and Mediaeval, 285; III, Renaissance, 288).

Abbreviations used in the News, Discussions, and Bibliography 118

PROCEEDINGS OF THE TWENTY-FIRST GENERAL MEETING OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA, Pittsburgh, December 29, 30, 31, 1919. 77

CONTENTS

vii

Preliminary Statement	77
Abstracts and Titles of Papers Read:	
The Roman Marriage Custom as Described in Lucian.	
—HELEN H. TANZER	77
Roman Cooking Utensils in the Royal Ontario Museum.	
—CORNELIA G. HARCUM	78
A Roman Terracotta Savings-Bank at the Johns Hopkins University.	
—DAVID M. ROBINSON	78
Etruscan Antefixes from Cervetri and Corneto in the University Museum, Philadelphia.—STEPHEN B. LUCE (See pp. 352-369) .	79
Primitive Aegean Roofs.—LEICESTER B. HOLLAND (See pp. 323- 341)	79
A Suggestion to Teachers of Epigraphy.—MARION E. BLAKE . . .	79
A Lost Painting by Pietro Lorenzetti.—E. T. DEWALD (See pp. 73-76)	80
Report of the Committee on the Protection of Historic Monuments in the Near East.—HOWARD CROSBY BUTLER	80
Recent Theories on the Origin of the Alphabet.—WILLIAM N. BATES	80
Some Ancient Sites in Mesopotamia.—R. A. MACLEAN	80
America in the Evolution of Human Society.—EDGAR L. HEWETT .	81
Manuscripts, Ivories, and Goldwork in the Abbey of St. Denis under the Patronage of Charles IV.—ALBERT M. FRIEND, JR. . .	81
Archaeology and Classical Philology:	
Greece.—HAROLD N. FOWLER	82
Mesopotamia.—MORRIS JASTROW, JR.	83
Italy.—GORDON J. LANG	83
The Monument of Agrippa at Athens.—W. B. DINSMOOR	83
The Lion Group at Sardis.—T. LESLIE SHEAR	83
A Reexamination of Archaic Laconian Grave Stelae.	
—G. W. ELDERKIN	83
Two Vases from Sardis.—GEORGE H. CHASE	83
The Subject of the Ludovisi and Boston Reliefs.	
—GISELA M. A. RICHTER	84
The So-called Temple of Hera at Tiryns.—CARL W. BLEGEN . . .	84
Ephyrean Ware.—CARL W. BLEGEN	84

PLATES

- I. The Will of Andrea della Robbia, Page 2: Florence.
II. Head from Rhodes: Front View.
III. Head from Rhodes: Profile.

ILLUSTRATIONS IN THE TEXT

	PAGE
Prehistoric Sites Near Corinth	2
Aetopetra from the North	4
Korakou from the West	4
Arapiza from the North	5
Yiriza from the East.	6
Gonia from the Northeast	6
Cyclopean Wall at Perdikaria.	7
Prehistoric Site near Vasiliko (Sicyon)	11
Janiform Oenochoe	15
Male Head from Oenochoe	16
Head of Negress from Oenochoe.	17
Tricephalic Agate: A, The Male Heads; B, Head of Negress (enlarged); C, Bearded Male Head and Negress	19
Roman Bronze Coin	20
Reliefs from Temple A at Naga (Meroë): A, Queen; B, Lion-god; C, King; D, Prince.	24
Etruscan Antefix, 245 B	29
Etruscan Antefix, 245 B: Profile	29
Etruscan Antefix	30
Etruscan Antefix, 246	31
Etruscan Antefix, 247	32
Etruscan Antefix, 247: Profile	32
Etruscan Antefix, 248 A	33
Etruscan Antefix, 248 A: Profile	34
Upper Part of the Great Breach: Soissons	49
The Nave: Soissons	50
North Side of the Cathedral: Soissons	51
Nave and North Aisle: Soissons	52
The West End, Interior: Soissons	53
The Great Breach and Buttress: Soissons	54
Above the Vaulting after the Destruction of the Roof: Rheims	54
The Towers seen through the destroyed Nave: Soissons	55
The Back of the Towers of St. Jean des Vignes, before the Last Bom- bardment	56
St. Jean des Vignes: Soissons	57
The Façade after the Bombardment: Rheims.	58
The Cathedral from the South after the Destruction of the Roof: Rheims	59
Shell Holes in Vaults: Rheims	61
The Apse: Rheims	62
The Façade before the Bombardment: Soissons	63
Section through Pier, St. Ouen: Rouen	66
The Church at Nettancourt	67
Interior of the Roof: Soissons	70

The Carmelite Madonna of Pietro Lorenzetti: Siena	74
Victory: Cyrene	101
Diadem of Sat-hathor-iunut: Cairo	103
Bust of Herodotus: New York	104
Scenes from the Life of St. John the Baptist by Henri Met de Bles: Messina	106
Madonna and Saints by Agabiti: Cingoli	109
Master of the Sant' Orso Cloisters: Portal at Bourg-Argental	122
Master of the Sant' Orso Cloisters: Tympanum of the Portal, Bourg- Argental	124
Master of the Sant' Orso Cloisters: Capital of the Cloister of Sant' Orso, Aosta	124
Pulpit at Isola San Giulio, Lago d'Orta	126
Sculpture on Jamb, Ferrara: Nicolò	127
Jamb of the Cathedral, Verona: Nicolò	128
Lintel of the Cathedral, Piacenza: Nicolò	128
Lintel of the Cathedral, Ferrara: Nicolò	129
Master of the Sant' Orso Cloisters: Capital of the Cloister of Sant' Orso, Aosta	129
Follower of the Master of the Sant' Orso Cloisters: Sculptures of the Hotel Dieu: Museum, Le Puy	130
Holy-Water Basin, Chamalières: Nicolò	131
Capital in the Crypt of St.-Denis	132
Jamb of St.-Denis	133
Sculptures of La Daurade: Museum, Toulouse	134
Stucco Relief in the "Underground Basilica": Rome	148
The Double-Axe Ornament in Mosaics and Illuminations	152
Mosaic at Sorde	153
Illumination from the Gospels of Anno of Freising	157
Miniature from the Heidelberg Sacramentary	158
Illumination from the Passau Gospels: Munich	159
Illumination in a Manuscript of the XII Century: Trèves	160
Relief of Noah by Nicolò: Cathedral, Modena	162
Prophet in the Sagra: Carpi	163
Map Showing the Distribution of the Double-Axe Motif	164
Column from the Cathedral Cloisters: Aix	165
Column of the North Portal: Bourges	167
North Portal of Church: Ardentes	168
Restoration of the East Pediment of the Old Temple of Apollo at Delphi	177
Christ Enthroned: St. Sernin, Toulouse	190
Saint Mark from a Carolingian Manuscript	191
Illumination in the Codex Egberti	191
Group from the Cathedral: Modena	192
Church of Sant' Angelo: Raparo	194
Triumph of Fame: New York Historical Society	199
Portrait of a Man: Castagno	204
Madonna of the Candalabra: Collection del Drago, New York	205
Spanish Ivory, Eleventh Century: Metropolitan Museum	218
Spanish Ivory Book Cover, Eleventh Century: Metropolitan Museum	222

The Book Cover of Queen Felicia: Spanish, Eleventh Century: Metropolitan Museum	224
Mask on Cylix: Bibliothèque Nationale, Paris	233
The Death of Medusa: Oenochoe of Amasis	234
Gorgon on Amphora: Munich	235
Archaic Antefix: Athens	236
Mask on Celebe: British Museum	236
Coin of Lesbos	236
Bronze Mask from the Acropolis: Athens	237
Marble Statuette: Acropolis, Athens	239
The Lares: Denarius of L. Caesius	251
Statuettes of Lares: A, Pre-Augustan Type; B, Dancing Lar	252
Cabir: Coin of Thessalonica	257
Bronze Hoplite from Temple of Apollo Corynthus	293
Wall Painting from the "House of Cadmus": Thebes	295
Terracotta Apollo: Veii	300
Portrait of Martínez Montañés: Painting and Drawing by Velasquez	307
A: Head from Tralles; B: Head from Rhodes	317
Head from Rhodes: Three Quarters Profile	318
A: Head of Aphrodite of Melos; B: Head from Rhodes	321
Primitive Apache House	325
I, House Foundations, Olympia, Greece: II, Cave, Behar, India; Section and Plan: III, Village Chaitya-House, India: IV, Rock-cut Chaitya (19), Ajantâ, India: V, Rock-cut Chaitya, Dhumnar, India: VI, Palace at Hatra, Mesopotamia: VII, Palace at Troy; A, Great Halls; B, Propylaeum	326
Interior of Chaitya House XXVI: Ajantâ	327
I, House at Kakoun, Egypt: II, Temple at Edfu, Egypt: III, Palace Persepolis, Persia: IV, House at Timbuctoó, Africa: V, Monastery at Kalat Sam'an, Syria: VI, Temple at Lhasa, Thibet: VII, Part of Palace, Tiryns, Greece: VIII, Mosque at Cairo, Egypt: IX, Part of Palace, Gha, Greece: X, Palace at Sayil, Yucatan, Three Terraces	330
Hall of the Six Columns: Mitla	331
House with Ridge-Roof: Vosges	336
I, Temple of Artemis Orthia, Sparta, VIII C: II, Old Temple at Thermos, VIII-VII C: III, Temple (?) at Tiryns, X-VII C: IV, Temple of Hera, Olympia, late VII C	338
Model of an Etruscan Temple: Nemi	340
The Will of Luca della Robbia: Page 2	345
Antefixes from Civitâ Lavina: British Museum	353
Antefix in Berlin: Type I	354
Antefix in Copenhagen: Type II	355
Antefix in Berlin: Type III	356
Antefix in British Museum: Type III	357
Antefix in Philadelphia: Type IV	358
Antefix in Philadelphia: Type V	362
Etruscan Ear-Ring: Philadelphia	363
Antefix in Philadelphia: Side View	364
Antefix with Abnormal Coloring: Philadelphia	368

CORINTH IN PREHISTORIC TIMES

THE theory recently advanced by Dr. Walter Leaf¹, that Corinth was not inhabited in Mycenaean times but existed merely as a geographical name designating Acrocorinth, has met with a speedy refutation. Dr. Leaf, arguing in 1914 that no Mycenaean settlement at Corinth was yet known and confidently prophesying that none would ever be found, ventured to identify the Homeric Ephyra with an entirely hypothetical site on a more or less hypothetical river in Sicyonian territory. Recent exploration in the Corinthia, however, has led to the discovery, not of one possible Ephyra, but of a really embarrassing number of claimants to the title. In order to present the prehistoric status of Corinth in its right light and to correct certain mis-statements which have been made, a brief account of the archaeologically established facts is here offered. On the accompanying map (Fig. 1)² each site has been indicated by a number corresponding to that given it below. The following are the prehistoric sites now known in the vicinity of Corinth:

1. At Old Corinth in 1896 on the low hill to the southeast of the square of the modern village a group of rock-cut tombs was discovered³ containing twenty-one vases of a rather primitive type of polished and glazed ware belonging to the Early Helladic Period.⁴ Farther to the west the hill on which stands the temple of Apollo consists in part of prehistoric deposit, some of it still lying in its stratified sequence. Both to the north and south of the temple potsherds have been found, including considerable quantities of neolithic as well as Early and Middle Helladic wares. Likewise in the eastern part of the agora in 1915 a pocket filled with sherds of glazed ware (Early Helladic) was excavated. Thus it is clear that already from remote prehistoric times a settlement surrounded the hollow in which flowed the spring that, as

¹*Homer and History*, pp. 209 ff.; *Cl. R.* XXXII, 1918, p. 87.

² The map is based on the British Admiralty chart. For help in its preparation I am much indebted to Dr. A. K. Orlandos of the Greek Ministry of Education, and to Mr. O. J. Teegen of the School of Architecture, Harvard University.

³ *A. J. A.* 1897, pp. 313-332.

⁴ For the classification of the pottery see p. 5 below.

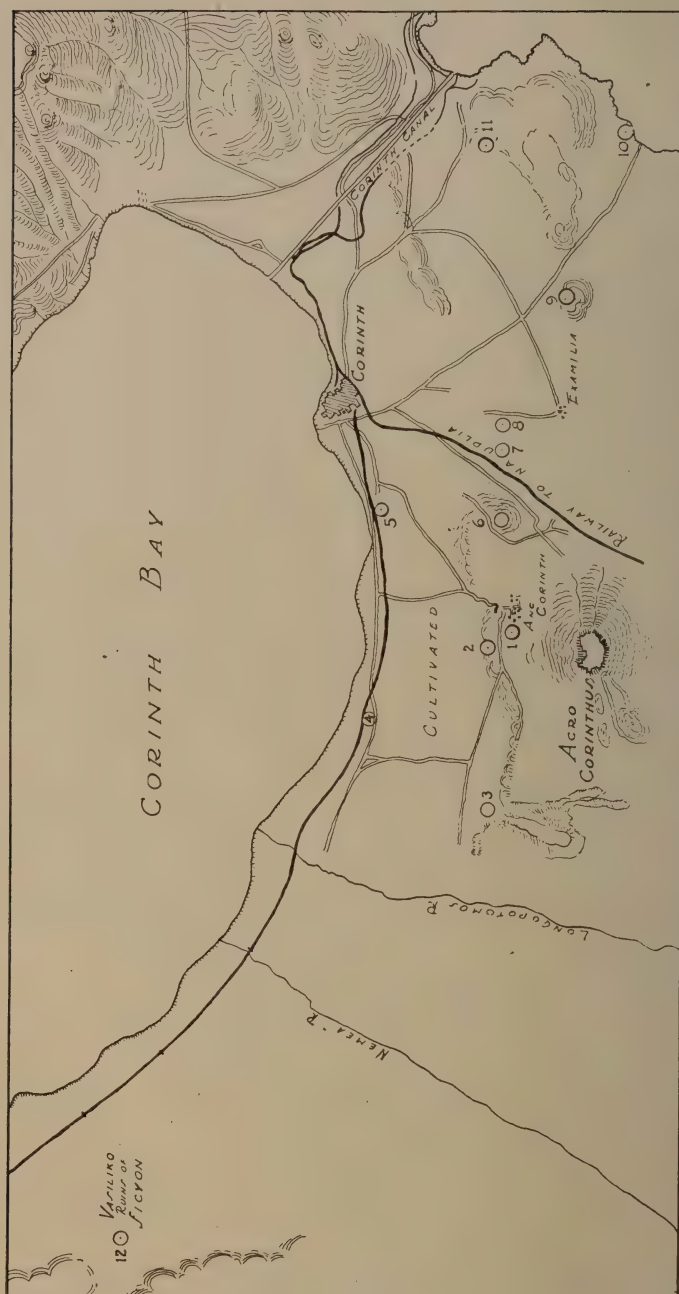


FIGURE 1.—PREHISTORIC SITES NEAR CORINTH.

Peirene, was destined to become the centre of classical Corinth. It is a noteworthy fact that no Mycenaean pottery—or at any rate only an insignificant number of sherds—has yet come to light at this site; but it should be observed that there has as yet been almost no investigation of the prehistoric deposit, and when the north side of the temple-hill is excavated, where the early stratification seems to be best preserved, it is by no means unlikely that Mycenaean remains will be found. Not much can be expected, however, for before the temple was built the top of the hill appears to have been irregularly shaved off, as a result of which in many places Greek deposit now rests directly on that of the Early Helladic Period. A more thorough cutting down of the hill occurred in the Roman period and, in consequence, to the north of the temple immediately below the bed of the Roman pavement we come upon Middle Helladic or even Early Helladic débris. It is to be hoped nevertheless that at some point the upper layer of the prehistoric stratum may be found undisturbed and there seems good reason to believe that it will demonstrate, just as proved to be the case at Troy, unbroken continuity of habitation.

2. About half a mile to the northwest of the temple of Apollo a ruined windmill known as “Mylos Cheliotou” crowns a small isolated hill at the edge of the upper plateau overlooking the plain to the north. Prehistoric potsherds comprising Early, Middle, and Late Helladic wares are scattered about this hill and its northern slope. The mound is thickly covered with débris showing evidence of continuous occupation from prehistoric down to recent times. A line of massive stones, projecting slightly above ground and traceable for a considerable distance, may belong to a prehistoric wall. Near by in a deep ravine to the south is a spring. No excavations have yet been made at this site.

3. Two miles to the west of Old Corinth a high circular cliff with flat top, standing conspicuously at the mouth of a deep ravine, bears the appropriate name “Aetopetra” or Eagle Rock (Fig. 2). It commands a splendid view of the fertile plain to the north and dominates an old road leading southward through the hills. One of the Mycenaean highways conjectured by Steffen¹ must have come down this ravine, passing just below the site. Many potsherds have been exposed by ploughing on the summit and others

¹ *Karten von Mykenai*, map.

may be gathered on the slope south of the cliff, among which Early, Middle, and Late Helladic fabrics are all well represented.



FIGURE 2.—AETOPETRA FROM THE NORTH.

A number of house walls also appear cropping out of the ground. Up to the present time there has been no excavation.

4. Near the shore of the Corinthian Gulf, somewhat more than a mile west of Lechaëum, is a slight elevation surmounted by a chapel of St. Gerasimus. In the field about the church Early Helladic sherds have been picked up in abundance, but no other fabrics have yet been observed. This site has not yet been excavated.

5. On a bluff named "Korakou," which juts out close to the sea at a point two-thirds of a mile east of Lechaëum and about two miles west of New Corinth, there is a low but conspicuous mound formed of the débris, etc., of successive prehistoric settlements (Fig. 3). Dr. Leaf is misinformed in asserting¹ that this



FIGURE 3.—KORAKOU FROM THE WEST.

¹ *Cl. R.* XXXII, 1918, p. 87.

site lies in the direction of Sicyon from ancient Corinth, for exactly the reverse is true. Korakou is situated about two and a half miles northeast of Old Corinth and is one mile more distant from Sicyon than is ancient Corinth itself (cf. map, Fig. 1). As a result of excavations carried on at this site a clear and undisturbed ceramic sequence has been brought to light, giving the basis for a division of the prehistoric period of southeastern Greece, subsequent to the Neolithic Age, into three main stages which we have designated the Early, Middle, and Late Helladic Periods respectively.¹ The Early Helladic Period has as its characteristic pottery the fabrics hitherto known chiefly as "urfirnis" wares; the Middle Helladic Period is distinguished by the use of Minyan and Mattpainted wares; and in the Late Hella-



FIGURE 4.—ARAPIZA FROM THE NORTH.

dic Period Mycenaean pottery is predominant. An important result of these excavations is the demonstration that the Mycenaean pottery of the mainland is a direct development of Minyan ware under progressively increasing Minoan influence. A full account of these excavations has been prepared for publication by the writer and will appear shortly.

6. A small prehistoric site has been discovered about a mile and a half east of Old Corinth at the north end of a ridge called "Arapiza" which lies just west of the carriage road from New Corinth to Argos (Fig. 4). Early and Middle Helladic sherds occur here and some Mycenaean ware has also been found. Arapiza is a small mound and probably not very important, but, standing near the chief line of communication between the Isth-

¹ This classification is briefly explained by Wace and Blegen, in *B. S. A.* XXII, pp. 175 ff.

mus and the Argolid, and affording a wide view of the Corinthian plain, it may mark the site of a military post. No excavations have yet been undertaken.

7. Half a mile directly north of the village of Examilia is a circular flat-topped elevation known as "Yiriza" which, rising



FIGURE 5.—YIRIZA FROM THE EAST.

steeply on all sides, forms a prominent feature of the landscape as viewed from the north (Fig. 5). Trial pits dug here in 1916 show that this site was occupied by a flourishing settlement throughout the Early Helladic Period, but no trace of subsequent habitation appeared.

8. A few hundred yards east of Yiriza and just above the road which leads from Examilia to New Corinth is an extensive pre-



FIGURE 6.—GONIA FROM THE NORTHEAST.

historic site (Fig. 6). It occupies a fairly broad but irregular ridge called "Gonia" which falls off steeply on all sides except for a short distance on the west where the slope is more gradual. A number of pits opened in 1916 yielded potsherds representing Neolithic, Early, Middle, and Late Helladic wares.

9. Traces of prehistoric occupation may be seen about one mile east of Examilia along the road to Cenchreae on a hill called "Perdikaria" with a precipitous northern edge. On one of the lower slopes stands a section of terrace wall built of huge stones in Cyclopean style (Fig. 7). This wall was observed in 1906 and



FIGURE 7.—CYCLOPEAN WALL AT PERDIKARIA.

a few Mycenaean potsherds were picked up. Minyan ware has also been found, as well as glazed ware of the Early Helladic Period, and a large quantity of obsidian. Perdikaria offers an admirable location for a settlement, controlling the road from Cenchreae and giving an extensive view toward the Saronic as well as the Corinthian Gulf. No digging has yet been attempted.

10. On the hill just above the northeast mole of the harbor of Cenchreae a few Early Helladic sherds have been found. This site bears evidence of Greek, Roman, and Byzantine occupation as a result of which neither the extent nor the duration of the prehistoric establishment can be determined without excavation. The situation is, however, a highly favorable one and it can

hardly be doubted that an important prehistoric settlement dominated the harbor of Cenchreae.

11. There is a prehistoric site at the Isthmus on the hill above the ruins of the stadium¹, but the cuttings in the rock described by Monceaux appear to date from occupation of the site in the early classical period. The prehistoric remains found here are up to the present time limited to a scanty number of sherds of Early Helladic ware.

Additional sites may yet be discovered by a more systematic exploration, and our knowledge of the prehistoric period will naturally be much enlarged when the sites already found are excavated; but the eleven settlements now known in the limited district about Corinth form a sufficiently striking commentary on the importance and the prosperity of the Isthmian region throughout the whole Bronze Age. Two of these settlements were inhabited in the Neolithic Period. All eleven appear to have flourished in the Early Helladic Period; seven were certainly occupied in the Middle Helladic Period; and six at least continued to exist until Late Helladic civilization was blotted out by the Dorian invasion. Two of the sites occupied in the Early Helladic Period and subsequently abandoned are very small and unimportant. Excavations will probably show that all the remaining settlements maintained their existence in the Middle and Late Helladic Periods.

The prosperity of this region was no doubt largely due to commerce. The results of the excavations at Korakou compared with finds from other points in the Aegean area make it clear that in the Early, Middle, and Late Helladic Periods alike, Corinth was consistently a centre of trade. There was at all times close communication with the Aegean and there were always very definite connections with Boeotia and Phocis to the north. In fact, Corinth seems to have been especially important as an intermediate station on a great trade route from the south to the north,—a route leading from the Argolid, from the Aegean, and even from Crete to the Isthmus and thence across the Corinthian Gulf to Thisbe whence it proceeded overland to Thebes and Orchomenos. The sea route was no doubt safer and certainly far easier than the difficult overland trail through the rugged passes of Mt. Geraneion. Relations with the west are also

¹ Monceaux, *Gazette Archéologique*, X, 1885, pp. 402-406.

evident and grow progressively stronger toward the end of the Bronze Age. Dr. Leaf is surely understating the case when he refers¹ disparagingly to the "trifling coasting traffic of the Gulf and the Four Islands at the mouth of it." We need only remind him that Greek Corinth had grown famous for her wealth and prosperity—dependent on just that traffic—long before she sent colonies to the far west in Sicily. So, too, in Mycenaean days the traffic up and down the Gulf of Corinth must certainly have been considerable and very profitable.

It is hardly necessary to explain here that this traffic was not carried on by large ships which require deep and spacious harbors with elaborately constructed quays. It was carried on by small and readily-handled sailing barks which could easily be drawn up on any sloping sandy beach. Just such a curving beach exists today at the foot of the mound of Korakou and one may often see the fishermen of modern Greece beach their Homeric-looking craft on those very sands. No traces of considerable harbor-works of the prehistoric period have yet been found at any point in Greece; and this in spite of the fact that all fresh discoveries have regularly tended to emphasize more and more the importance and the extent of prehistoric trade relations. Artificially constructed harbors were not essential to the commercial success of Mycenaean navigators; and we need no excavated port at Lechaëum to explain the prosperity of the Mycenaean settlement at Korakou.

Dr. Leaf, quoting from Philippon, paints the climatic conditions of Corinth in extremely dark colors.² To one who has lived there for months at a time and in all seasons of the year the picture is much distorted and exaggerated. Gales do indeed occur at intervals and the dust is sometimes distressing, but no more so than at a score of other places in Greece. On the other hand the regular sea breeze from the Gulf is highly beneficial in cooling the atmosphere in summer and makes many a hot day at Corinth endurable or even pleasant while Athens is sweltering in a calm. We may be perfectly sure that the climatic conditions of Corinth compared favorably with those of other places in the Atreid realm and did not discourage settlement about the Isthmus.

Again, in his estimate of the quality of the soil at Corinth, Dr. Leaf is no more fortunate in his quotation from the same German

¹ *Homer and History*, p. 212.

² *Homer and History*, p. 210.

authority. Indeed when he goes so far as to maintain¹ "there can be no better type of barrenness and desolation," no one familiar with Corinth can refrain from a smile of incredulity. It must be borne in mind that the plain between Corinth and Sicyon, famous in antiquity, and in modern times as well, for its richness and fertility, has the shape of an irregular crescent with a length of a dozen miles and a breadth of two to three. Corinth stands at the eastern, Sicyon at the western end, each roughly equidistant from the sea. Down through the middle of this productive plain, dividing it into two approximately equal parts, runs the Nemea River which in its deeply cut bed marks a natural boundary.² The territory to the east of this river belonged throughout historical times to Corinth; that to the west was Sicyonian. Each city thus possessed an equal share of the land which had become proverbial for its value. There is no evidence whatever to indicate that the boundary was different in prehistoric times. Dr. Leaf, however, apparently seizes the whole of the plain up to Lechaëum and the very gates of Corinth and confers it all on Sicyon. This is certainly improbable in the extreme and cannot be accepted for a moment. If an unequal division of the plain must be made it would seem, up to the present time at least, that Corinth with her numerous settlements was entitled to claim the major portion rather than Sicyon, where only one prehistoric site is yet known. This latter (Fig. 8) is a small site at the extreme end of the promontory jutting out to the east from the plateau on which stands the village of Vasiliko. It is numbered 12 on the map (Fig. 1).

But even though we understand Dr. Leaf's condemnation as being directed merely against the remnant of the territory still conceded to prehistoric Corinth, it is yet far from corresponding with the facts. The steep sides of Acrocorinth are, it must be admitted, both arid and stony, and here, it is true, "the wan blossoms of the asphodel" flourish abundantly in the springtime. But down below on the upper and lower plateau the soil, which is not excessively stony, is not below the average in productivity.

¹ *Op. cit.* p. 211.

² Two and one-half miles east of the Nemea River another stream, the Longopotamos, runs through the plain from south to north. It also has a deeply cut bed and would form a good natural boundary. The Nemea River is, however, the traditional frontier between Corinthia and Sicyonia (cf. Strabo, VIII, 6, 25). It does not affect the argument of this paper, whichever of the two be taken as the boundary.

In and about Old Corinth there are no less than a dozen springs¹ and market gardening is carried on as a very profitable enterprise. The fields about and below Old Corinth can be relied upon to produce good crops of wheat. On the upland rising toward Acrocorinth barley—and at present tobacco—is grown with success. The best land of all—on the lower plateau—is planted with currant vines which, until attacked by the phylloxera, yielded a



FIGURE 8.—PREHISTORIC SITE NEAR VASILIKO (SICYON).

regular and abundant harvest. According to statistics kindly furnished me by the president of the community of Old Corinth, the crop raised in 1918 in this small portion of the Corinthia amounted, apart from the usual abundance of asphodel, to the

¹ The most important of these springs are the following: (1) One-half mile east of the village is a good spring called "Kakavi." (2) One-quarter mile south of the temple of Apollo, issuing from the base of Acrocorinth, is the spring of "Hadji Mustapha" from which we get our drinking water. (3) At the eastern edge of the village is a copious spring called "Murat Aga." (4) About 200 yards farther west is a nameless spring beside a ruined mosque just below the carriage road. (5) In the centre of the village Peirene issues in three outlets: "Palukovrysi" in the plane-tree square, and the "Tsimpidi" and "Kachros" fountains some distance below. (6) By the paved road winding down the steep bluff directly north of the village is a fountain of which I do not know the name. (7) About 150 yards west of this fountain are the Baths of Aphrodite with a copious flow of water. (8) North of the quarter known as "Kutchuk Machala," and about 400 yards northwest of the temple of Apollo, is a spring which waters a large market garden. (9) One-half mile southwest of the temple, at "Anaploga," is a good spring. (10) A half mile west of the chapel of Hagia Paraskeve is a fountain called "Kokkinovrysi." (11) In a deep ravine south of the prehistoric site at "Cheliotomylos" (cf. p. 3 above) is a spring with a considerable amount of water. (12) Between "Cheliotomylos" and the Baths of Aphrodite, in a distance of rather more than half a mile, there are at least four separate springs which are used to irrigate flourishing market gardens.

following totals: wheat and barley (almost evenly divided) 600 tons; hay 700 tons;¹ dried currants 300 tons; tobacco 110,000 pounds; cheese 300,000 pounds; wine 50,000 gallons; olive oil 20,000 gallons. The yield of grain was exceptionally good that year but on the other hand the planting was very light—not much more than one-half the normal amount—owing to the shortage of seed.

Farther to the east in the neighborhood of Examilia the situation is the same. There are numerous springs and market gardens, one of which is noted for its orange groves and fruit trees. The lowland returns a good yield of currants, grapes, and wheat, while the upland and the hills ascending to the back of the Isthmus as well as the latter itself give a large return of barley.² And finally the higher hills including Acrocorinth, Mt. Oneion, and the Geraneian range of Perachora provide excellent grazing ground for large herds of sheep and goats in consequence of which the manufacture of cheese is an important industry.

The Corinthia today maintains ten or a dozen villages with a rural population, not including New Corinth, of considerably more than 10,000. These villages are not only independently self-supporting in the matter of food supplies, but produce annually and market in New Corinth a fair amount of grain, large quantities of cheese, wine, and tobacco, and an average of 25,000,000 Venetian pounds of dried currants.³ A market of such proportions would seem in large part to justify the existence of the town of New Corinth. Dr. Leaf may attempt to discount the currant crop on the ground that the currant vine, being a Venetian importation, was unknown in prehistoric times; but one must not overlook the fact that the currant vineyards occupy the most productive land in the Corinthian district which was fully as fertile in antiquity as it is today. We may therefore safely conclude that Corinth in the prehistoric period, far from being a "type of barrenness and desolation," was, with its many springs and its desirable land, a highly attractive region for settlers, well able to sustain a considerable population.

Dr. Leaf's theory of the non-existence of Corinth in the Mycen-

¹ Hay in the Peloponnesus usually means barley which is cut green.

² Estimated total for 1918: 425 tons barley and 210 tons wheat.

³ The figure is taken from Inglezi's 'Οδηγὸς τῆς Ἑλλάδος. The Venetian pound, which is regularly used in the currant trade, is slightly heavier than the English pound.

aeon Period, as well as his conclusions based thereon, must accordingly be revised. Corinth was an important and flourishing region throughout the Bronze Age. Its geographical position made it a distributing centre of trade—a station of consequence on a great trade route from south to north. It included an attractive agricultural district by no means inferior to that of the Argolid in quality. The large number of inhabited sites makes it certain that the Mycenaean spirit of enterprise did not fail to exploit these natural advantages. The aggressive race of which Agamemnon was the head was not deterred by climatic conditions, nor even by the fear of disastrous earthquakes, from establishing itself firmly about the Isthmus. Indeed it may be more than a shrewd surmise that the King of men himself derived a considerable part of his royal income from the Isthmian trade. In conclusion, therefore, we are amply justified in taking Dr. Leaf at his word,¹ and expecting him to admit that he has used a faulty block as the corner stone of his theory.

CARL W. BLEGEN.

AMERICAN SCHOOL OF CLASSICAL STUDIES,
ATHENS, GREECE.

¹ *Homer and History*, p. 214.

TWO HEADS OF NEGRESSES

REPRESENTATIONS of negroes in Greek art both in sculpture¹ and in painting are by no means rare, ranging as they do from life-size figures to heads on the fractional currency of various cities.² Their ugliness seems to have appealed alike to sculptor, engraver, and painter, and their prophylactic³ quality to the populace throughout the Mediterranean. This, and the universal popularity of the myth of Lamia, would lead one to expect a similar abundance of representations of negresses in the arts and crafts of the Ancients, yet in point of fact only very few have come to light. I have not been able to find more than three records of a negress' head modelled in the round and two negresses on Greek vase-paintings.

Of the first, one is recorded by E. V. Stern in *Jh. Oest. Arch. I. VII*, 1904, p. 201, where he describes an incomplete terracotta head of a negress with black glaze found at Olbia. In the same paper⁴ he deals with a bronze vessel made in the form of the bust of a young girl whom he describes as a negress. A glance at the illustrations (*op. cit.* pp. 197 ff., 3 figs.) can, however, only lead one to the conclusion that such a head, such a profile, and such hair—conventionalised though it be—cannot be intended to represent a young negress. The face is essentially Slavonic in character and might belong to a Russian peasant girl of the present day. The two other negress heads are more fully described (*Bull. d. Ist.* 1866, p. 236 and 1872, p. 83, No. 36), the former being a vase excavated in Etruria modelled in the shape of two Janiform heads—the one a realistic head of a negro girl painted black, the other a head of a Greek girl slightly archaic in style and pale in colour. Above both heads is the inscription

¹ Reinach, *Rép. Sculpt.* Index, 'Nègres,' 'Esclaves.'

² *British Museum Catalogue, Italy*, Etruria, p. 15, Nos. 17-21: *Central Greece*, Delphi, p. 25, Nos. 6-9, pl. IV: *Troas, etc.*, Lesbos, p. 153, Nos. 42-45, pl. XXX, 19.

³ The prophylactic quality of negroes has been discussed by A. J. B. Wace, *B.S.A. X*, 1903-1904, pp. 107 ff.

⁴ Summary in *A.J.A. IX*, 1905, p. 215.

⁵ *American Journal of Archaeology*, Second Series. *Journal of the Archaeological Institute of America*, Vol. XXIV (1920), No. 1.

ΗΟΡΑΙΣΚΑΛΟΣΝΑΙ. The latter vase was excavated at the Certosa near Bologna, and is a rhyton of Janiform shape again with the contrasted heads of a Greek girl and of an "Ethiopian woman."

The vase paintings have both been published by M. Mayer, 'Noch einmal Lamia' (*Ath. Mitt.* XVI, 1891, p. 300 ff. and pl. IX). Of these only the "Lamia" vase in the National Museum at Athens is of importance¹; and this, according to Mayer, is a portrayal, or rather a free adaptation of a scene from a contemporary² satyric comedy.

Mythology tells us of Lamia, a daughter of the royal house of Libya, the black princess of whom Zeus was enamoured and whom Hera in her jealousy first caused to devour her own children and then, turning her into a hideous creature, made her live by devouring the children of others. Folk-lore popularized her even more, and to the childhood of Greece she was the Bogey who ate up naughty children; while the modern Greeks³ still tell of her as a sea-monster⁴ who eats up the sun's rays and causes eclipses. The popular satyric⁵ comedies seem to have represented her as an evil daimon of negroid appearance who was justly tormented by the Satyrs,



FIGURE 1.—JANIFORM
OENOCHOE.

¹ The second painting of the negress Lamia (?) is figured in the above mentioned article on p. 306, being taken from a rough and ugly Boeotian vase of the fourth century B.C. The coarse and sketchy drawing is not without a certain repulsive realism.

² On stylistic grounds Mayer assigns the vase—a lecythus, H. 0.315 m., B. F. on white ground—to the first half or middle of the fifth century. The painting shows a nude negress of hideous appearance bound to a palm-tree and tormented by Satyrs.

³ Roscher, *Lexikon*, s. v. 'Lamia,' II, 1821.

⁴ The ancient myths call her the mother of Scylla, which explains her position as a sea-monster. Roscher, *loc. cit.*

⁵ Daremberg Saglio, s. v. 'Lamia,' p. 908. Cf. references to her, Aristoph. *Vesp.* 1177, etc.

the followers of the good god Dionysus; and, though the comedies are lost to us, Mayer is probably right in recognizing such a scene on the lecythus of the Athenian National Museum.

The rarity of negress types has lead me to the conclusion that



FIGURE 2.—MALE HEAD FROM OENOCHOE.

it may be worth describing two representations of negresses—hitherto unpublished—in my possession.

1. Oenochoë (Figs. 1, 2, 3); H. 7.1''; the body is the natural terracotta colour and modelled to represent two heads back to back,¹ the one a male head (Fig. 2) with thin finely shaped nose, protruding beard and long moustaches; the other a hideous head

¹ In addition to the Janiform heads—negresses and Greek girls—cited above, compare a vase of similar style and period to ours in the British Museum, E. 786 (*Guide Grk. and Ro. Antiq.* 1908, fig. 93), a fifth century rhyton with heads of a satyr and a maenad.

of a negress (Fig. 3) with high cheek-bones, broad flat nose, large mouth with very thick lips between which appears a row of big teeth; she seems to wear a thick close-fitting cap which merges at the sides into the hair of the male head. The foot is long and thick; the neck thick and crowned by a trefoil lip. The black colour



FIGURE 3.—HEAD OF NEGRESS FROM OENOCHOE.

remains around the foot, on the neck, and on the handle. Traces of red painting remain around the neck—below the black band—on the throat of the male head below his beard, and on his lower lip. Traces of black remain on his moustache and on the nose of the negress.

Though its provenance is unknown to me the fabric of this oenochoë leads one to suppose that it is Attic, and from the style of the male head it must be placed in the first half of the fifth century B.C. Nor does the presence of the negress' head quarrel

with this dating, for representations of negroes were made at Athens as early as 500 B.C.¹

It is the characteristic of many Janiform representations to portray either the two contrasting aspects of a single being, as in the case of Dionysus bearded and beardless on coins of Tenedos,² or of Boreas with dark face and light face on the R. F. vase published by Stephani³; or such representations may portray two contrasting beings welded—often humourously—into one. Our vase obviously belongs to the latter class; the male head is clearly a fine example of the bearded Dionysus, the kindest and most genial of the gods; and what better contrast to him could be found than the children's Bogey, the hideous big-toothed⁴ negress Lamia, whom we have already seen in the popular satyric comedies punished by the followers of Dionysus himself? Since there was an African Dionysus, son of Ammon,⁵ worshipped at least as early as the fifth century B.C., this combination of the African monster Lamia with Dionysus is particularly apt.

2. Grey banded agate carved in the round (Fig. 4); Ht. 1.25", representing three negroid busts back to back. The black portion of the stone is reserved for the head of a negress whose features, though true to life, are not exaggerated; a white band in the stone—shaped like an elongated horseshoe—is cleverly adapted to form the edging of a veil, carved in a grey section of the stone, draped over her head and across her chest. The second head is that of a middle-aged negro; he has tightly curling

¹ Cf. the fine vase in the shape of a negro's head published in 'Εφ. Ἀρχ. 1894, pp. 127 ff., pl. 6. For other vases of similar shape compare *B. M. Vases* IV, G. 155, oenochoë from Cephalus in Cos; and G. 156, askos from Capua. Perhaps the most striking of all Greek pictures of negroes is to be found on the Bousiris vase, Ionian, sixth century B.C., Furtwängler-Reichhold *Vasenmalerei*, pl. 51; vol. I, p. 255.

² *B. M. C., Troas, etc.*, pl. XVII; cf. also Roscher, *s.v.* 'Janus,' II, p. 54, who regards the heads not as male and female but as the two types of Dionysus. These coins are, however, a much discussed subject, Wroth regarding them as rather depicting two contrasting beings, male and female, Zeus and Hera (Wroth *Introd. B. M. C. Troas*, p. xlviii) welded into one.

³ *Ann. d. Ist. XXXII*, pl. L. M., p. 332, also Roscher, *s.v.* 'Boreas,' I, p. 809.

⁴ Mayer in the paper cited above (*Ath. Mitt.* XVI, 1891) draws attention to the big teeth of Lamia, the devourer of children, as depicted on the lecythus in Athens.

⁵ A. B. Cook, *Zeus*, I, p. 373 ff.; cf. a Janiform marble bust in the Vatican with heads of bearded, horned Ammon and bearded, wreathed Dionysus, after a fifth century original, Amelung, *Sculpt. Vatic.* I, p. 657, No. 523, pl. 70.

hair and beard, the latter close cropped, and a thin moustache. The third head portrays a negro youth, beardless and with hair like that of the older man. The eyes of all three heads have semi-lunar drilled pupils. Eye-lids and brows are well marked.

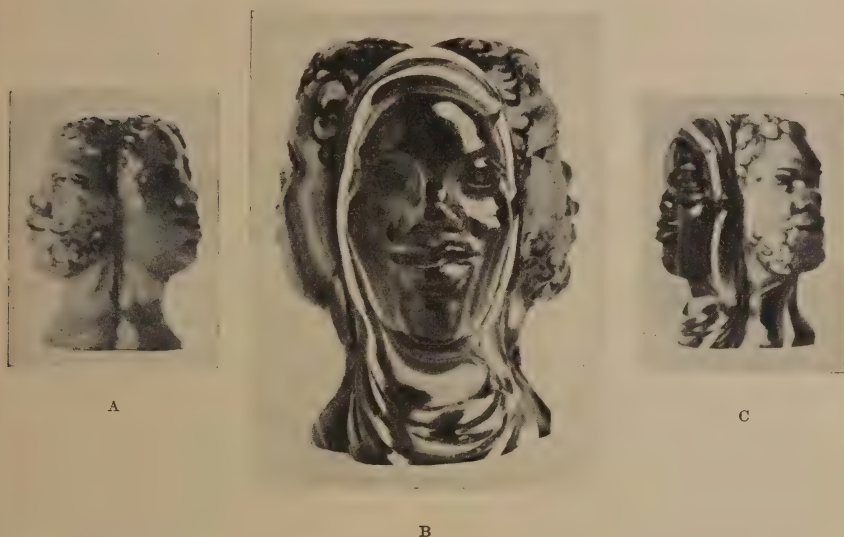


FIGURE 4.—TRICEPHALIC AGATE: A, THE MALE HEADS; B, HEAD OF NEGRESS (ENLARGED); C, BEARDED MALE HEAD AND NEGRESS.

A small vertical shaft has been drilled down the centre of the agate. There is a small chip over the left eye of the negro youth. Purchased in Alexandria.

Two explanations occur to one of the purpose which this agate may have served; either it may be the handle of the lid of some agate casket or vase, such as the Tazza Farnese; or it may have been the head of a small sceptre. Figure 5 shows a Roman small bronze coin of the first century of our era (Cohen, VIII, p. 272, 53, wrongly described as "Aelius?") with a bust—probably that of Augustus—mounted upon a short sceptre, and it is conceivable that our stone may have served a similar purpose.¹

Ancient gems carved in the round are of comparatively rare occurrence. According to Furtwängler² they were first produced in the Hellenistic age and were already popular under the

¹ Cf. the sceptre of agate from Curium in Cyprus; Cesnola *Cyprus*, p. 309, fig.

² *Antike Gemmen*, III, pp. 335 ff. and p. 458.

Ptolemies. With the exception of a small figure of Aphrodite wrought in chalcedony the few examples that he mentions are all portraits belonging to the first and second centuries of our era. But Pliny (XXXVII, 8, 108)¹ describes a large statue carved in topaz of Arsinoe, wife of Ptolemy Philadelphus who reigned 285-246 B.C.

I cannot find any record of a gem comparable to the one here published, which appears to be unique both in its form and in its

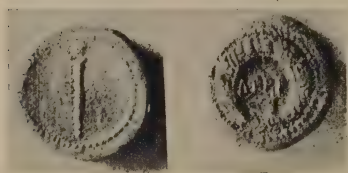


FIGURE 5.—ROMAN BRONZE COIN.

subject of negro portraiture. In seeking to assign a date to such a thing one must be guided more by the work of gem-engravers than by that of sculptors, and one naturally turns for reference to the big cameos produced, as our agate probably was, by Alexandrian artists of

the Ptolemaic and Roman periods and copied by the Romans who were fascinated by such gorgeous works of art. Moreover, a comparison of the technique employed in carving the eyes will be one of our surest guides to dating. The eyes on our stone have pupils which are rendered as semi-lunar sinkings which, in the two male heads especially, give the effect of an upward glance. An early Ptolemaic cameo, a sard in Vienna,² with the conjoined busts of Ptolemy Philadelphus and Arsinoe II, has the lower half of both iris and pupil marked by an engraved semi-circular line which gives the eyes an upward glance; while another of Ptolemy Soter³ has drilled pupils, but circular in shape, which give a staring appearance. It is only when we come to the first century of our era that we find on a cameo eyes carved with the pupils rendered as semi-lunar sinkings, and these appear on a large sard (18 x 26 cm.) in the Hague Collection,⁴

¹ In XXXVII, 8, 118, he also describes a statue of Nero made of jasper.

² Furtwängler, *Antike Gemmen*, I, pl. LIIL, 1; II, p. 250; III, pp. 155 ff. and Delbrueck, *Antike Porträts*, pl. 58, 15. The latter points out, p. LII, note 1, that a plastic rendering of iris and pupil is the rule on gems even of early date.

³ Furtwängler, *loc. cit.* I, pl. LIX, 3; II, p. 266.

⁴ Furtwängler *loc. cit.* I, pl. LXVI, 1; II, p. 304; Claudius triumphant to right in a car accompanied by Messalina (or Agrippina?), Britannicus, and Octavia; the emperor as Jupiter, his consort as Ceres: a Victory flies to crown them: the car is drawn by two centaurs of whom the foremost carries a trophy and shield and tramples on two crouching captives. The work is somewhat coarse but striking.

one which, if it is of Roman work, is certainly inspired by Alexandrian art. This modelling of the eyes is particularly clear on the heads of Claudius, of Victory, who flies to crown him, and of the two centaurs who are harnessed to the triumphal car. The portrait of Claudius himself and the coiffure of his daughter Octavia fix the date of this large cameo, which must belong to that emperor's reign.

On this analogy, then, I am inclined to place our agate between 50 B.C. and 50 A.D., accounting for its artistic superiority by the supposition that it is the work of an Alexandrian Greek who was a master of his craft, and bearing in mind the fact that a technique which appeared at Rome about 40 A.D. may have been in vogue at Alexandria nearly a century before. The heads are distinguished from other representations of negro heads—with the exception of the fine bronze head in the British Museum¹—by their freedom from caricature and their serious treatment. Consequently this gem can scarcely be a prophylactic, since for such a purpose an ugly thing derives additional merit by added ugliness. Moreover the negress with her graceful veil, reminiscent of the veil on the coins of Arsinoë and of Berenice,² has almost a queenly appearance.

I am indebted to Mr. A. B. Cook³ for the suggestion that conceivably some negro princeling had the gem carved by a Greek artist as a representation of himself and his family. If we carry this hypothesis a step farther a possible explanation suggests itself. It has already been pointed out that the most important of the three heads—the one to which the artist has devoted the greatest care and for which he has selected the best part of the stone—is that of the negress. Is she a negro queen whom the artist has modelled upon the great queens—dead but deified and still worshipped—Arsinoë and Berenice of Egypt? Is she, in fact, the Queen of Meroë accompanied by her consort and her son?

Until recently our information about Meroïtic rulers was scanty, gleaned from scattered references in the classics. The

¹ This head—No. 268—is described *B. M. Guide Grk. and Rom. Antiq.* 1908, p. 154, as "portrait head of an African." He is not a pure negro but rather a Libyan with slight negroid characteristics.

² *B. M. C. Ptolemies*, pls. VIII, XIII.

³ I take this opportunity of expressing my thanks to Mr. Cook for much valuable information and assistance.

indigenous population of the country was largely negroid,¹ and upon this population was imposed in the reign of Psammetichus I a ruling caste of Egyptian warriors. Herodotus (II, 29-30) tells a story in which he emphasizes the point that these mutinous soldiers migrated to Meroë with the purpose of finding wives among the natives as well as of settling in the country: Τῶν δὲ τινα λέγεται δείξαντα τὸ αἰδοῖον εἰπεῖν, ἔνθα ἂν τοῦτο ᾗ, ἔσεσθαι αὐτοῖσι ἐνθαῦτα καὶ τέκνα καὶ γυναῖκας. The classical authors give us the names of three rulers of the country: Ergamenes,² king of Meroë, who was brought up in the court of Ptolemy Philadelphus (Diodorus, III, 6); Candace, queen of Meroë, who in 22 B.C. invaded Egypt, and against whom Augustus sent a punitive expedition under Petronius; Candace, queen of Meroë at the time when Nero sent a mission to discover the source of the Nile (Strabo, XVII, 1, 54; Dion Cass., LIV, 5, 4-6; Pliny, *H. N.*, VI, 29, 181-186), probably the same queen³ whose eunuch was converted to Christianity by Philip (Acts, VIII, 27). Strabo tells us that the people of Meroë were governed by a queen (XVI, 4, 8, βασιλεύονται δ' ὑπὸ γυναικός, ὃφ' ἦν ἔστι καὶ ἡ Μερὸν) and it has been presumed that these queens all bore the title of Candace.

A great advance in our knowledge of this offshoot of Egyptian civilization has, however, been made by the discoveries of Professor Garstang in 1910 which are so ably set out in his book *Meroë, the City of the Ethiopians*, and his work confirms and amplifies what has been recorded by Dr. Wallis Budge in his *Egyptian Sudan*.

Various opinions have been expressed⁴ as to the prevalance of negro blood in the race of the kings and queens of Meroë, but a glance at the illustrations of some of these personages⁵ is sufficient

¹ Erman (transl. Tirard), *Life in Ancient Egypt*, 1894, p. 501; and Wallis Budge, *Egyptian Sudan*, 1907, II, p. 413.

² Ark-Amon on the monuments; Garstang, *Meroë the City of the Ethiopians*, p. 4.

³ *Op. cit.* Introd., p. 3.

⁴ Garstang himself expresses no opinion as to the negroid characteristics of the Meroites, but his co-author, Professor Sayce, believes (*op. cit.* Introd., p. 4) that the monuments prove definitely that the Ethiopians had no negro blood in their veins, disagreeing with Dr. Budge, who calls the same monuments to witness that strong negroid characteristics do appear in the faces and figures of many of the kings and queens of Meroë (*Egyptian Sudan*, I, pp. 407, 411; II, p. 135).

⁵ Budge, *op. cit.* I, pp. 375, 403, 409; II, pp. 121, 125, 127.

to convince one that negroid characteristics are by no means rare. Generally speaking these traits are much more marked in the women, who often appear as steatopygous negresses dressed in Egyptian garb, while the men of the ruling caste are at times thick-lipped and woolly-haired, and at times resemble their Egyptian ancestors. In this we have surely a strong confirmation of Herodotus' pointed story about the mutinous soldiers of Psammetichus I. Painted monuments were lacking before 1910, but a most important discovery of Garstang's in the temple of Isis at Meroë—a discovery the interest of which seems, in this connection to have escaped his notice—once again confirms Herodotus. Garstang found two great columnar statues of an Ethiopian king and queen,¹ the former painted red, the latter black.

Meroitic art is an echo of the conventional hieratic art of Egypt which regularly paints the flesh of men red and the flesh of women pale yellow. Yet here we have the king painted red like any male Egyptian, and the queen black like a negress. Her head too, which is illustrated in *Meroë*, pl. XVIII, 3, is, though conventionalized, clearly that of a negress with high cheek-bones and thick lips.

The question now arises whether it is possible to identify our negro queen carved in agate with any Meroitic queen depicted on the monuments: and here we may pause to note four points about this agate; first, that the heads—and particularly that of the queen—are negroid; secondly, that the king is a bearded negro; thirdly, that the young "prince" is beardless; and lastly the curious shape of the three-headed gem suggesting some triple-headed deity.

Figure 6 shows the heads of four personages² carved, in the order in which they are here printed, on the west wall of the temple of the Lion-god (Temple A) at Naga in the "island of Meroë." Allowing for the difference between Meroitic art—an offshoot of late Egyptian—and Greek art of the first centuries before and after Christ, it would seem that these four figures may well be compared with our gem.

¹ Garstang, *Meroë*, pl. XVIII, 1, 2, 3, p. 19. The queen is now in the Royal Scottish Museum, Edinburgh, and Mr. Curle, the Director, informs me that she is painted black, with traces of red pigment on the armlets and the undergarment.

² After Lepsius, *Denkm.*, Abth. v, Bl. 59, and Budge, *op. cit.* II, Plate facing p. 144. The Lion-god's name was Apezemak; cf. Garstang, *op. cit.* p. 63.



FIGURE 6.—RELIEFS FROM TEMPLE A AT NAGA (MEROË): A, QUEEN; B, LION-GOD; C, KING; D, PRINCE.

The queen (Fig. 6, A) on the temple at Naga wears the headdress of the queen of Egypt. The Greek gem-engraver was most familiar with the headdress of the queen of Egypt as worn by the descendants of Arsinoë—the flowing veil. The queen at Naga, thickset and large-hipped,¹ is a negress² as she is on the agate.

¹ Cf. other reliefs portraying her figure, Budge, *op. cit.* II, pp. 125, 127.

The king (Fig. 6, c) "is clearly of negro origin" (Budge, *loc. cit.* II, p. 134) and is bearded like the king on our agate. The "prince," (Fig. 6, d) on this and other monuments of the same Meroëtic dynasty, is the regular companion of the queen and king as he is on our agate.¹

Most remarkable of all, however, it is to find these three royal personages worshipping a three-headed deity (Fig. 6, B)—the Lion-god of the Meroites whose other temple was excavated in 1910. In ancient Egypt the king was an incarnation of the deity, and this belief prevailed in Meroë with even greater force than in Egypt, Diodorus (III, 5; τοῦτον τὸ πλῆθος αἰρεῖται βασιλέα· εὐθὺς δὲ καὶ προσκυνεῖ καὶ τιμᾷ καθάπερ θεόν) making a special reference to the worship of the royal house by the Ethiopians. On a temple at Messawrat—of later date than temple A at Naga from which the reliefs come—is a set of curious carvings depicting in three cases leonine monsters, and in one case a winged lioness, toying with prostrate captives. "In these scenes the lion probably typifies the king. . . . The lioness probably symbolizes the queen" (Budge, *loc. cit.* II, pp. 149–150). Obviously the chief members of the royal house were thought of as incarnations of the three-headed Lion-god, and the artist has conveyed this idea in the agate.

According to the latest readings of the hieroglyphics the three personages on the temple are Queen Amanitêre, King Naticamani, and prince (?) Arik-kharêr.² Probably all the queens who bore this name also bore the name of Candace; while the Amanitêre of the temple has been identified with the Candace who rebelled against Augustus in 22 B.C.³ But for the fact that Meroë was not in so flourishing a condition in the first century of our era that great temples would be erected, she might almost as well be identified with the Candace⁴ whom Nero's

¹ Griffiths (Garstang, *Meroë*, p. 61) remarks upon this curious circumstance, "It would be interesting to know why a third personage is so often represented along with the king and queen on Meroëtic temples. . . . Some considerations point to his being the son and heir of the king, while it would be reasonable also to suggest that he is an eponymous prince or priest distinguishing the members of a dynasty of homonymous kings and queens like the Ptolemies and Cleopatras of Egypt."

² Garstang, *op. cit.* p. 61. The same royal names appear on inscriptions at Wad-Ben-Naga, Amâra, Naga, Meroë, and in one of the pyramids.

³ Budge, *op. cit.* II, p. 169.

⁴ One of these two Candaces may, in Prof. Sayce's opinion, be identified with the Kantakit buried in one of the pyramids of Meroë.

Commissioners visited and who is mentioned in the Acts of the Apostles.

Whether she be the Candace of 22 B.C. or of 54 A.D., our agate seems to depict the same queen—accompanied by King Natakamani and by Arik-kharêr—as she who is carved on the temple at Naga. A Graeco-Egyptian gem-engraver¹ has shown his skill in portraying her black, like the black queen found in the temple of Isis at Meroë, while the gem has a curious connection with the local religion in that the artist has suggested the three-headed Lion-god in his treatment of the three royalties who impersonate the god on earth.

Whichever of the two historical Candaces this negro queen may be, she forms an effective contrast to the hideous negress, Lamia, on our Attic fifth-century oenochoë.

CHARLES T. SELTMAN.

QUEENS' COLLEGE,
CAMBRIDGE, ENGLAND.

¹ A cameo was discovered by Garstang, near the sanctuary of Amon at Meroë, made of glass paste (*Meroë*, pl. X, 3); also a Graeco-Roman bronze statuette of Eros (pl. XVIII, 5).

ARCHAIC ANTEFIXES FROM CERVETRI IN THE UNIVERSITY MUSEUM, PHILADELPHIA, PA.

THE antefixes, which are described in this brief paper, were acquired by the University Museum in 1897, together with a large number of shell antefixes of later type, from the same site and from Corneto, which I hope to publish in a later paper. Although antefixes of this type have been long known and often published, it is my desire here to call attention to the large amount of material existing for study in American museums, particularly those of Philadelphia and New York.¹

In 1869, there was discovered at Cervetri (the ancient Cære) a large number of remains proving the existence of an important temple. Unfortunately for the science of archaeology, the excavation which unearthed these remains seems to have been what is sometimes called an "illicit dig," *i.e.* an excavation conducted by and for dealers, and without the knowledge of the government.²

Partly for this reason, and partly because less attention was paid to such things then than now, no evidence is obtainable either as to the ground-plan of the temple or as to its size, save that offered by the objects found. Of these last there was a great number, which are now for the most part in the following five museums: (1) the Antiquarium at Berlin; (2) the British Museum; (3) the Glyptothek Ny-Carlsberg at Copenhagen; (4) the Metropolitan Museum in New York; and (5) the

¹ Through the courtesy of the authorities of the Metropolitan Museum in New York, especially Miss G. M. A. Richter, who very kindly sent me photographs of all the specimens in the Museum, I am permitted to refer to examples in that collection which correspond to those in the University Museum.

² These excavations are said to have been conducted by Jacobini: see *Mon. dell' Inst. Suppl.* text, p. 1. As this excavation was conducted before the occupation of Rome by the Italians, and therefore while Cervetri was still within Papal jurisdiction, it is likely that the rules at that time regarding excavations were less severe than they later became.

University Museum in Philadelphia.¹ There may be a few also at the Museo Artistico Industriale in Rome.² Those in New York and Philadelphia were obtained in Rome in 1897 by Professor A. L. Frothingham of Princeton University, who was then Acting Director of the newly established American School of Classical Studies in Rome,³ and were divided by him into two parts, the larger of which came to Philadelphia.⁴

An antefix, as is well known, is the ornament at the ending of the row of cover-tiles along the eaves of a temple or other building to conceal the joining of the roof tiles. Many of the antefixes in Philadelphia have portions, often quite considerable, of the cover-tile at the back.

These antefixes, as would be expected in an Etruscan temple, are of terracotta. It has for a long time been well known that the Etruscans were great users of terracotta for decorative purposes, as well as for the protection of the exterior parts of their buildings; for the great number of Etruscan temples and public edifices were of wood, and a terracotta revetment, or covering, not only concealed the unsightly structural members, consisting, as they did, of more or less rough-hewn beams, but protected them from the effects of the weather.⁵ Moreover, terracotta is cheap, and, if broken, can easily be replaced. There seems to be evidence from the different styles of the figures used in this temple, as shown by an examination of the objects in the five museums already mentioned, that several such replacings,

¹ Berlin acquired a large number of these antefixes almost immediately on their discovery; see *Arch. Zeit.* 1870, p. 123. 'Terracotten von Cervetri.' From this it appears that twenty archaic antefixes were acquired at this time, and four of the later shell antefixes. The others seem to have remained in the hands of dealers for the next twenty-five years, Copenhagen and the British Museum obtaining theirs in 1893, and New York and Philadelphia theirs in 1897.

² This is doubtful, but a terra-cotta frieze relief from this site is preserved in that Museum, published *Mon. dell' Inst. Suppl.*, pl. I, and described, *ibid.* text, p. 1; and the antefixes published *ibid.* pls. II and III may also be in that Museum, although there is no definite statement as to this in the description on pp. 1 and 2. Archaic antefixes of the types described in this paper are illustrated (very badly) on pls. II, 4, 4a, and III, 4, 4a, and 5, 5a.

³ Now the School of Classical Studies of the American Academy in Rome.

⁴ As far as is known, the objects to be described here have not been published before.

⁵ Revetments of this sort, of which the University Museum is fortunate in possessing a large collection, were published by the writer and Mr. Leicester Bodine Holland in *A. J. A.* XXII, 1918, pp. 319-339.

or even rebuildings, took place. It may be, of course, that there was more than one temple on the site where these remains were found, but the evidence points the other way.

All of the antefixes covered by this paper seem to belong in the sixth century B.C. The latest ones may possibly be of the early fifth century, and there is a possibility that the earliest ones may antedate the sixth century; but it is probable that the whole collection should be considered as of sixth century workmanship.

The earliest ones in this group are those which are numbered 245A and 245B.¹ Figures 1 and 2, which are taken from No. 245B, show the type. Here the head is very small, being no higher or wider than the tile itself, and forming merely a species



FIGURE 1.—ETRUSCAN ANTEFIX, 245 B.

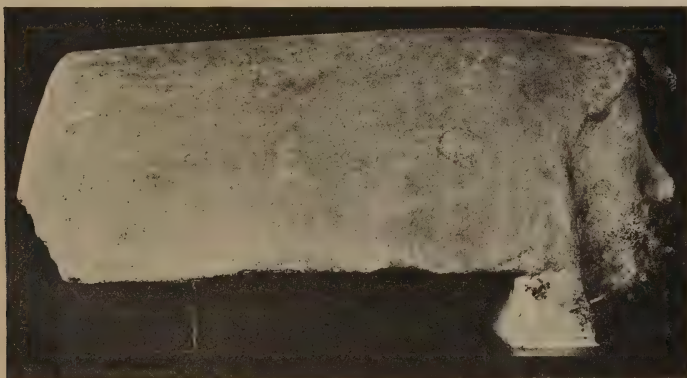


FIGURE 2.—ETRUSCAN ANTEFIX, 245 B: PROFILE.

of cap for the cover-tile. This is clearly shown in Figure 2, which shows a large part of the tile still preserved. There are two examples like these in the Metropolitan Museum in New York,

¹ The numbers are those attached to the specimens in the cases; the inventory numbers are MS1808 and MS1815.

which are there numbered GR1032 and GR1033. Of these, GR1032 is exactly similar to Philadelphia 245B, while GR1033 corresponds to 245A. Though there are minor differences which make 245A a distinct type from 245B, it is, nevertheless, permissible to group them together, as they are of the same size and period, and probably from the same building. Of the two, 245A is in a very fragmentary state, most of what appears at present being restored. At first it was thought that it might be hand modelled, but on closer examination, and on comparison with the parallel example in New York, it seems clear that there is not



FIGURE 3.—ETRUSCAN ANTEFIX.

sufficient evidence to prove this. In the case of 245B, on the other hand, nearly everything is preserved (Figs. 1 and 2), only a little at the bottom being added, and that of minor importance, and indisputably correct in detail. It is obviously made in a mould.¹

These early antefixes, which seem to belong in the first half of the sixth century B.C., if not earlier, bear no trace of painted decoration or ornament; in fact, the use of paint and of a slip

marks the second period in the development of this form of architectural terracotta embellishment. Furthermore, the extremely archaic manner of the figures should be noted, with the rough, unskilled treatment of the hair, and the "Egyptianizing" headdress. The smile, characteristic of the archaic sculpture of Greece, is to be found on these heads from Etruria, as well as the wide, expressionless stare of the eyes.

Next in order comes a pair,² one of which is illustrated in Figure

¹ An antefix of this type is published in *Mon. dell' Inst. Suppl.*, pl. III, 4, 4a. As stated above, it may be in the Museo Artistico Industriale at Rome.

² Not exhibited. Inventory numbers MS1809 and MS1812.

3. A fragment closely resembling this pair is in New York (No. GR1035). These resemble 245A and 245B, but the faces are larger, and the execution better.^v The hair is parted in the middle, and roughly treated, though better than in the earlier specimens. The features are much more sharply defined, and the "archaic smile" is less pronounced. The size of the heads is greater, being the same as in the later examples.

Polychrome ornament was clearly employed in this pair, for traces of color in details can be distinguished, principally black. A thin, cream-colored slip was first laid on over the reddish clay, and the colors applied on this slip. The preservation of this pair of antefixes, unfortunately, is poor, and much has been restored. The correctness of the restoration of some details can be questioned.

The next type to be noticed is the specimen numbered 246 (Inv. No. MS1810. Fig. 4). A similar figure, numbered GR1028, is to be found in New York. The fragment in Philadelphia is in very poor preservation, the one in New York being more complete. From the specimen in the Metropolitan Museum the disc-like earrings were restored.¹



FIGURE 4.—ETRUSCAN ANTEFIX, 246.

The head shows a slight advance in technical skill. The hair is arranged in a formal manner, parted in the middle, and then neatly crimped in waves. The ears and earrings too show a certain advance in skill; but behind the ears the "Egyptianizing" locks hang down along the neck. Faint traces exist, which point to the presence of a white slip, with possibly polychrome decoration; but not enough is preserved to prove what the nature of the

¹ I am informed by Miss Gisela M. A. Richter, that one of these earrings is original on the New York specimen, and the other restored. The antefix published in *Mon. dell' Inst. Suppl.* pl. III, 5, 5a, appears to be of this type, but the drawing is so poor that it is impossible to state this with accuracy. As previously indicated, this antefix may be in Rome.

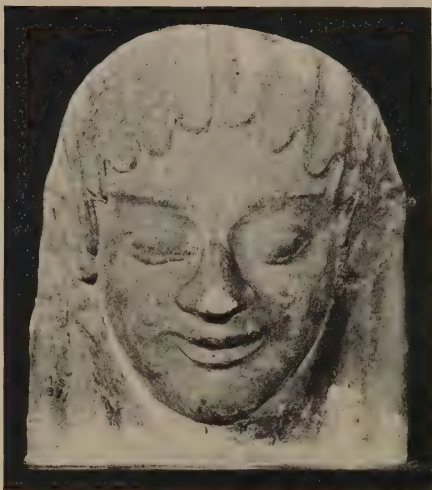


FIGURE 5.—ETRUSCAN ANTEFIX, 247.

exists at the back (Fig. 6). The features are sharply defined, the face firm, and coming to a point at the chin. The eyes slope

decoration may have been. The expression of the features is still archaic. This specimen should be dated somewhat after the middle of the sixth century B.C.

The next antefix to be considered, No. 247 (Inv. No. MS1811. Fig. 5), is a most interesting type. There are none resembling it in New York, but a published example identical with it is preserved in Copenhagen.¹ A large fragment of the cover-tile

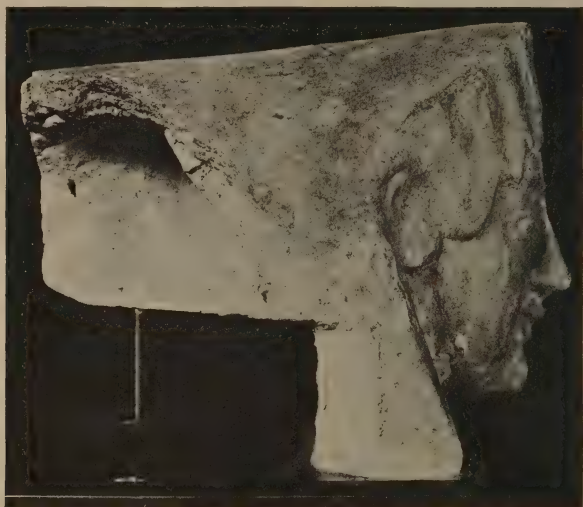


FIGURE 6.—ETRUSCAN ANTEFIX, 247: PROFILE.

inward toward the nose, and the "archaic smile" is very noticeable. The hair, parted in the centre, is dressed in very pro-

¹ See Wiegand, *Glyptothek Ny-Carlsberg*, text, p. 27, pl. 175, 2, 2b.

nounced waves along the forehead to the ears, which are set very high. Below them falls the "Egyptianizing" head-dress common to all these early specimens. There are no earrings. A great deal has been restored in plaster, but the restoration is correct. For details polychrome decoration seems to have been employed. This is a striking example of sixth century Etruscan workmanship.

Of the four types above mentioned, besides those in Philadelphia, New York, and Copenhagen, there are thirteen examples in Berlin, of which seven have polychrome decoration,¹ but it is impossible for me to assign these correctly to the groups to which they belong, as no adequate description of them is available.



FIGURE 7.—ETRUSCAN ANTEFIX, 248 A.

Of the next class to be considered (Figs. 7, 8), twelve examples are known to me, divided among the five museums as follows: seven in Berlin,² two in Philadelphia, one in Copenhagen,³ one in the British Museum,⁴ and one in New

¹ *Arch. Zeit.* 1870, p. 123, 'Terracotten von Cervetri,' 4.

² *Arch. Zeit.*, l. c., 3. Two of these are published by Wiegand, *Glyptothek Ny-Carlsberg*, text, p. 28, figs. 40, 41.

³ Published by Wiegand, l. c., pl. 175, 1, (in colors).

⁴ *Catalogue of Terracottas*, No. B624, p. 175. I quote the description, as minor differences appear which are worthy of mention. "Female mask, from antefix. The hair is parted and neatly crimped in waves, and falls (indicated by vertical black lines) on either side of the neck; in the ears are large disc-shaped earrings, and on the head a large erect myrtle-wreath. The face is covered with a pale buff slip; the lips and hair are red, the eyelids

York (GR1031).¹ This type is, therefore, the commonest of any single type of archaic antefix that has been found at Cervetri.

The two in the University Museum are numbered 248A and 248B (Inv. Nos. MS1813, MS1814). The illustrations are of 248A, the better preserved of the two, on which only the point



FIGURE 8.—ETRUSCAN ANTEFIX, 248 A: PROFILE.

of the chin and the "Egyptianizing" headdress back of the ears have been restored. A large part of the original cover-tile remains at the back, as the profile view shows (Fig. 8).

In their original state, these antefixes must have been very brilliant. Red, yellowish brown, buff, white, black, blue, and

and eyebrows black, and the pupils of the eyes green; the earrings have black markings on a red ground, and the wreath is green on a black ground. The eyes slope strongly inwards." The italics are mine.

¹ Besides the twelve antefixes here enumerated, an antefix published *Mon. dell' Inst., Suppl.*, pl. II, 4, 4a, should, perhaps, be considered as distinct from these, and, as previously indicated, may possibly be in Rome.

green appear on the different examples, put on over a buff slip. The hair is sometimes rendered in yellowish brown, as in 248A, sometimes in black, as in 248B; in the example in the British Museum it is red, according to the description in the Catalogue just cited. The diadem has various forms of decoration, sometimes a palmette-lotus pattern, sometimes a garland of leaves, sometimes rays. The flesh is in white or buff, and details are rendered in appropriate colors, the lips being red, the eyes either blue, green, or brown.

In No. 248A, the flesh seems to have been rendered originally in white overcolor; but this has largely disappeared as has nearly all the color for details of the features, leaving the buff slip. In No. 248B, however, all this is fairly well preserved. In both cases the eyes seem to have been blue. The hair is dressed in much the same manner as in the examples described earlier in this paper, being parted in the middle, and crimped in neat waves along the forehead. This form of dressing the hair is employed in all of this type. As has been mentioned above, it is yellowish brown in 248A, with lines of black to indicate waves; in 248B, it is all black.

The principal feature of this type is the erect diadem which is worn above the crimped waves of hair. As has been pointed out in a former paragraph, these diadems have various forms of decoration. In 248A, it seems to have had a conventionalized plant design, in red, yellowish brown, and black; but so little of the decoration is preserved that it is impossible to say just what form the pattern took. In 248B, the design is of the nature of a ray pattern, in red and black on a light buff ground.

In the ears are disc-like earrings, preserved in 248A, restored in 248B, similar to those in the type of 246.

The archaic manner proves this group to belong in the late sixth century B.C. The "archaic smile," it is true, is, to a certain extent, modified; but the eyes, with their pronounced slope toward the nose, and their almond shape, and the persistence of the "Egyptianizing" headdress point to this type being of the archaic period.

These, then, represent the antefixes of the early period of the temple at Cervetri. In a later article, the second period will be

discussed, with the great shell antefixes, which mark the Etruscan work of the fifth and fourth centuries B.C.¹

STEPHEN BLEECKER LUCE.

UNIVERSITY MUSEUM,
PHILADELPHIA, PA.

¹ For many suggestions and much help, I am indebted to the following persons: First of all, to my colleague and friend, Mr. Leicester B. Holland of the University of Pennsylvania, who has collaborated with me in the study of Etruscan architectural terracotta decoration; then to Miss Gisela M. A. Richter, of the Metropolitan Museum in New York, who has supplied me with photographs and much valuable information regarding the examples in that Museum; to Dr. Lacey D. Caskey, of the Museum of Fine Arts in Boston, in whose office I wrote this paper in its final form; and to Dr. J. M. Paton, the Editor of this JOURNAL, with whom I talked over various points, and from whom I have received much helpful advice.

THE THEORY OF GOTHIC ARCHITECTURE AND
THE EFFECT OF SHELLFIRE AT
RHEIMS AND SOISSONS

I

THE PROBLEMS IN THE THEORY OF GOTHIC

To the student who makes a careful review of the present writers on Gothic, it is evident that there is a considerable divergence of opinion among them. This divergence is not only in regard to its origin and its historical development, about which there must always be differing theories, nor in the limitation of the term to a greater or less number of buildings and provinces, but it is a variance in the theory of the determining principles themselves and of the main features of the buildings. Apparently the theory of Gothic is still undergoing modifications, in spite of the serious works of several authors who have endeavored to present a comprehensive and final view of it. To collect these views in some orderly arrangement, with an attempt to give them the relative importance that the opinion of the majority seems to agree upon, may well be our first step in establishing a working basis for our observations and criticism. In so doing we shall bring out the various points in dispute and see clearly for what we must search in the ruined monuments.

At the outset, a distinction should be made, which is often overlooked, between the determining principles and the forms or architectural features of the buildings. To illustrate, the concentration of supports is a principle, a pier is an architectural form; or, to take a case more frequently confused, the transmission of thrust is a principle, but the flying arch is not, being merely a device of construction or "flying buttress." In this connection, too, it may be noted that the principles are few, but the forms through which they were expressed are many.

I. Of all the principles involved in the conception and execution of a typically Gothic work, the one most generally emphasized

is that of logic in construction. According to Viollet-le-Duc, the great early exponent of Gothic, this was its chief underlying idea, almost to the exclusion of others. For him the historical development of perfected Gothic was dictated by logic throughout and it was in obedience to close reasoning along constructional lines that each great cathedral was designed. This view has been developed to an even greater extent by the American writers, who have largely formed the theory as we know it today. Professor Moore, Mr. A. Kingsley Porter, and Professor Frothingham in their very extensive studies of the subject have applied this idea to nearly all parts of the building and have insisted on it with the greatest positiveness. Even the latest English writers who have treated French Gothic, Jackson and Simpson, have taken the same stand.

On the other hand, there seems to be somewhat of a reaction against too much emphasis on logic as the governing factor. The French writers, who, after all should have some hearing on such a subject, and who are, by race at least, inclined to be logical themselves, while assigning to logic the principal rôle, yet take pains to show that the Gothic cathedral is in some respects not logical in fact, whether it was so in intent or not. Thus, one of them, Brutails,¹ insists that the originator of this theory, Viollet-le-Duc himself, was very prone to *a priori* reasoning, with a reckless treatment of facts in support of his hypothesis, and that "logic" with him was almost an obsession in his later years. Viollet-le-Duc has also been found to be mistaken in regard to the communal or civic character of the motive that produced the cathedrals. Mr. Porter has shown with great thoroughness that they were entirely ecclesiastical in their origin. M. Guadet, an architect as well as a profound student of all architecture, considers the whole system of abutment of the vault thrusts as merely one of two possible solutions, the other being the tie rod used in Italian Gothic.² He raises the point whether the French system, the flying arch and buttress, being more uncertain and less economical, is indeed as logical.

M. Enlart, one of the greatest French authorities on Gothic, in his study on the cathedral of Rheims³ considers that here rig-

¹ Brutails, *L'Archéologie du Moyen Âge*, p. 181.

² Guadet, *Elements et Théorie de l'Architecture*, II, p. 307.

³ Enlart, *La Cathédrale de Reims* (Special No. of *L'Art et Les Artistes*, 1915), p. 23.

orous logic was secondary to beauty of form, notably in the flying arches, of which the upper tier is without use, even as a conductor for rainwater.

Among the architects, as contrasted to the archaeologists, Mr. R. A. Cram, one of the greatest American designers as well as students of Gothic, asserts¹ that the informing principle in the twelfth century was a love of beauty, whereas logic, later obtaining the upper hand as in Amiens, produced only inferior buildings. Professor Hamlin, who in his *History*, first published in 1897, considered² that principles "of structural stability and propriety controlled the development throughout," in his latest analysis³ maintains very strongly his belief that the part of logic has been over-emphasized and that in fact it was secondary to the esthetic considerations, especially after the formative stages of the style had been passed.

Here, then, is a difference of emphasis amounting to a real divergence of opinion in the most fundamental principle, at the very outset of the whole definition of Gothic, a difference inviting us to possible elucidation and discussion.

II. Another underlying principle that is given an almost equal importance and that, if true, marks off the style absolutely from all others except the immediately preceding stages of later Romanesque, is what has been called its *dynamic* quality. In the phrase of one of the latest exponents, it was the first time in architectural history, that a living force was set in motion to overcome and neutralize the action of another living force, as contrasted with an architecture based on inert resistance. "The laws of beauty were subordinated to the laws of scientific life . . . and so a Gothic building became a living organism."⁴ How far this conception has been carried may be seen from another well-known author, an Englishman, but a great lover of French Gothic and a beautiful draftsman of many of its buildings, who speaks⁵ of "the mighty unseen forces engaged in fierce combat."

This quality is usually insisted upon in the definitions of Gothic, and no wonder. It is striking to a degree, novel to the general reader, and fascinating in its appeal to the imagination. And

¹ R. A. Cram, *Heart of Europe*, pp. 110-111.

² Hamlin, *History of Architecture*, 1897, p. 193.

³ Hamlin, *Arch. Rec.* XL, 1916, pp. 110-112.

⁴ Sturgis and Frothingham, *History of Architecture*, III, p. xxix.

⁵ T. C. Jackson, *Reason in Architecture*, pp. 126-127.

yet when one looks for the concrete applications of this principle, so striking to the layman, but suspicious to the architect, he finds it limited principally to the flying arch and buttress. There is a feeling in the reader's mind that there is also somehow a balance of one groin vault against another, of the chevet vaults against the last vault of the nave, or of one aisle arch against another; but there is a great lack of definiteness. Even in the case of the flying arch itself, there is considerable confusion, some authors giving the impression that it exerts a thrust to counter-balance the thrust of the vault inside the wall. Some like Hamlin and Guadet state that it only *transmits* the vault thrust to the buttress, acting as a strut, while others like Moore and Jackson call it a prop, but consider that in this feature "the equilibrium by opposing thrusts is completely developed."¹

Now, here is a perfectly definite issue. Does the flying arch exert a push against the vault or is it a pure strut, that is a slanting post which receives the outward push of the vault at one end and transmits it to the buttress at the other? In the latter case, there is no balance of thrusts but merely a thrust on a column, and the principle of the opposing thrusts, deprived of its leading application, must be circumscribed. Here again we may well look to find some light on the true state of affairs from the ruined buildings themselves.

In the other applications of this principle, the issue is less definite. Hamlin in his latest writing, however, says² "the only balanced thrusts are really those of adjacent pier arches and wall arches and transverse vaults, which do thus balance each other." The last statement might seem to be possible of immediate acceptance, but just how far all this actually corresponds to the construction may also be developed by a study of the parts that have stood in the ruined churches where the adjoining parts have been destroyed.

III. The next principle in importance is that of the highly organized framework, or skeleton, consisting primarily of ribs, piers, flying arches, and buttresses. This is excellently stated by Mr. Moore in his summary of Viollet-le-Duc's theory, in which he describes it³ as a system whose distinctive characteristic is "that

¹ C. H. Moore, *Development and Character of Gothic Architecture*, p. 112; see also p. 8 and p. 20, § 5.

² *Arch. Rec.* XL, 1916, p. 109.

³ Moore, p. 8.

the whole scheme of the building is determined by, and its whole strength is made to reside in, a finely organized and frankly confessed framework, rather than in walls. This framework; made up of piers, arches, and buttresses, is freed from every unnecessary encumbrance of wall, and is rendered as light in all its parts as is compatible with strength." This part of the definition is generally agreed upon by all writers and emphasized. We may therefore consider it as the undisputed foundation of the theory and search the monuments for its confirmation.

IV. The next general principle is that of conscious revelation of structure. As Frothingham puts it¹ "every structural element was frankly shown." Mr. Moore states it as broadly also and adds: "We see at a glance that the building is not composed of walls and timber roofs, but that it consists of vaulting sustained by piers and buttresses. . . . In the frank exhibition of each functional member, and the artistic skill with which all are shaped and adjusted with regard to their effect in the mighty whole, reside largely the peculiar impressiveness of the Gothic cathedral."²

On the other hand, we find Professor Hamlin bringing out the fact that in certain respects this expression of function did not correspond to the fact;³ "for the vaulting shafts *do not completely carry the vaulting* they only appear to do so." M. Guadet⁴ questions whether this system of abutment in which the interior vaults are sustained by exterior struts, unsuspected on the interior, is not really less expressive of structure than that of some other styles. Further, he and M. Enlart consider the upper arch of the double flying arches of no structural use, as we have already mentioned, thus apparently denying the principle in one of its most significant features. The façades also have often been criticised as not expressing the real structure of the building. Mr. Moore hardly makes his point when he argues that "the façade is merely a storied edifice in which the structural principles peculiar to Gothic are not extensively called into requisition,"⁵ for the question is rather whether the structure of the nave is expressed by this exterior.

¹ Sturgis and Frothingham, III, p. 10.

² Moore, p. 187.

³ Hamlin, *Arch. Rec.* XL, 1916, p. 110.

⁴ Guadet, II, p. 330.

⁵ Moore, p. 178.

There are, of course, many large features of the cathedral in which this revelation of structure holds good, but from the point of view of design the full discussion of this principle is second to none in interest. Enough has been said to indicate that there is distinctly a controversy here, and, as it involves the actual construction, it is one on which one may well hope to find further information after examining the churches laid bare by the recent destruction.

V. One more principle should be included in the theory, that of lightness of construction, as evidenced by the reduction of the piers, the thinness of the vaults, the flying arch and buttress systems, and practically all other parts. This guiding principle is very generally agreed on, the differences being as to its source, whether in "logic," or economy, or sheer virtuosity in constructive technique, or in some more concrete conditions, such as the necessity to reduce the piers on account of the worshippers,—or finally as a part of the Gothic ideal of beauty in design. The outstanding instance of this principle or tendency was the reduction of the wall space in the clerestory and in the aisle or chapel wall, until this became entirely a glazed opening. The result had the greatest effect upon the whole interior aspect, but which of the above causes was responsible for it is again a matter of differing opinion. In all of these cases, the explanations vary according to the different points of view of the authors that we have already mentioned. Though we may not hope to find any confirmation of such non-material causes in our search, we may be led to make certain modifications in our theory which will throw new light on this point also.

We have now reviewed the various broad principles which form the basis of the theory, and the questions in dispute about each.

There is the principle, generally accepted, of the organized framework. Are there important parts in the nave at least, which are other than framework, and how far does this framework correspond to the theory?

There is the question of "logic." Was it the supreme controlling factor or was it secondary to the *appearance* of logic and to purely esthetic considerations in determining the designs?

There is the question of "balanced thrusts." Is there a thrust exerted by the flying arch against the vault, by one vault compartment against another, and by the pier arches or wall arches against each other?

•

There is the question of "revelation of structure." How much of such structure apparently revealed is real structure? Is there other structure which is not revealed?

There is finally the question of the tendency to extreme lightness of construction. Was it due to logic, or to necessity of one kind or another, or to esthetic reasons?

So much for the statement of the principles. We now come to the leading *features* of Gothic construction, which are usually enumerated as follows, differing somewhat in order of importance according to the different authorities: The vault, with its ribs and cells; the pointed arch used for the ribs and all the openings; the flying arch and buttress, with its pinnacles; the pier with its clustered shafts; the height of the nave; the suppression of the wall; the stained glass windows; the sculpture. Concerning these features there are still many questions upon which critics differ. Such as relate to historical development and dates of construction can hardly be treated here. Though it is quite possible that a careful study of so many monuments as now have their inner structure exposed will lead to important results, yet this study can only be properly carried out on the spot, or at least with photographs of larger scale and more architectural intent than those now at hand. Those questions that relate to interdependence of parts, to the function of members, to their relative importance, to their structural or decorative quality, and to all parts that are ordinarily hidden from the eye, are however within the scope of our study, provided that they can be observed from the limited illustrations now available.

In regard to the ribbed vault, the last word is¹ that the ribs served primarily as centering, that their importance in supporting the vault after it was once erected has been "grossly exaggerated," and that probably the vaults would, in the majority of cases, stand without them, like plain groin vaults. In support of this are cited parts of the ruined vaulting of the abbey of Longpont already in ruins before the war. This is a departure from the former theory that the ribs actually supported a thin shell which filled in the spaces, and the weight of which was carried by them to the points of concentrated thrust.

Another important detail is that of the vault-conoid. This in its lower part is believed to be constructed of heavier stones and

¹ Porter, *Construction of Lombard and Gothic Vaults*, p. 16.

solidly filled, so that it acts as a solid member, together with the ribs at this point, in imparting the thrust to the flying arch and buttress. Evidently its character and function here are not the same as in the upper part. How far this is true is a question for which we may well search an answer in the ruined vaults.

As to the vault in general and its preëminent part in the whole scheme of the nave, how far was it indeed "the central fact," the feature which controlled the whole development of Gothic?

In regard to the pointed arch, the questions that may fall within our inquiry are those relating to its strength in comparison with the round arch, thus perhaps contributing to the solution of the problem as to how far its adoption was due to convenience in regulating the arch heights.

The flying arches and buttresses are naturally of very great interest. We have already seen the open questions that exist in regard to their part in the principle of balanced thrusts; namely, whether the buttress exerts a thrust on the vault or not, and in the principle of revelation of structure, where the assertion has been made that they rather belie than express it in their upper member.

The pier with its clustered shafts is usually treated as a typical instance of Gothic, each shaft being supposed to express its support of the weight from a section of the vault, which is discharged upon it by its corresponding rib. While it might be stretching the theory to take this with perfect literalness, yet this is certainly the impression usually left upon the student. The effects of shellfire upon these shafts, then, will be part of our investigation.

The questions of the minor importance of the wall, or even of its entire suppression and the reduction of the whole building to vaults, piers, and glass, as well as the question of the part played by the window openings in the development of the style,—a question generally considered settled in favor of the vault as the determining feature,—may seem to be beyond demonstration in this inquiry, but if we bear them in mind, we shall perhaps find some light on them also.

As to the sculpture, the questions in regard to it are of meaning rather than structure. Evidently the ruins can give us no light, but in passing, it may be said that the interest is more poignant here, for the loss is indeed irreparable. One may suppose that some of the construction will be rebuilt and that when time has softened and colored the rawness of the new, those churches

which are capable of reconstruction will resume something of their former aspect. But the sculptors and the spirit that animated them are gone, copies by artisans would never be the same, and in this, as in the glass, the churches must probably remain forever mutilated.

II

THE EVIDENCE OF THE RUINS

Before discussing in detail illustrations of the monuments, several general observations may be made. We have already spoken of the possibility of discovering more about the realities of the construction. But we may hope to learn not only from the broken portions, but also from those that are more or less hidden, such as the upper side of the vaults, the roof, and its relation to the wall or piers. Further, we shall see the structure in some cases somewhat as the builders saw it. Since the architects or master builders of those days lived on the works and the half-completed buildings must have entered into their conception far more than is the case with the architects of to-day, we, on finding ourselves in their position, may gain somewhat more of their point of view than by always reasoning backward from the finished church. May we not say, indeed, that only thus can we free ourselves from the tendency to see a logical reason for every feature, since the logical explanation is the most natural one for a scientifically-minded historian, archaeologist, or critic to seek? Of the many invisible paths that may have led to the visible result,—material difficulties, failures, caprices, survival of tradition, or strict logic,—is not that of logic the one most likely to be sought for, and its imaginary trail found by a reasoning, classifying generation.

Finally, the geometrical drawings in our books, especially the sections, taken as they usually are through the openings rather than through the pier, tend to be misleading. For instance, from them we readily assume that the vaulting conoid was largely solid with filling or that the flying-arch buttress was developed from the continuous abutting barrel vault of Romanesque work. This latter assumption is probably correct, though questioned, but it is certainly much favored by the similar appearance of the two features in the usual geometrical sections.

A question naturally arises at this point about the effects of shellfire in general upon such buildings as the Gothic churches. Broadly speaking, it may be said that the simplest, and rarest, effect is the piercing of a roof or vault by a projectile without explosion, for usually the explosion takes place at the point of contact. In case of a fracture or explosion, the flying or falling fragments may cause further destruction to anything around or below them. In addition to all this destruction there were, in some cases, incendiary shells, as at Rheims, where great numbers of such shells were fired upon the cathedral, causing the destruction of the roof and flèche by fire.¹

The direction of these projectiles was probably vertical in the case of air bombs and nearly so in the case of shells, which being of long range would drop nearly straight. Even a slight angle, however, or a shell-burst beside a wall or pier would give the impact a certain direction.

In addition to these effects, there is always the possibility of more than one hit producing the result that we see. At Soissons and Rheims, at least, we know from successive photographs in different years that the destruction was thus progressive.

From all this, it is clear that in such a welter of destruction as came upon some of these finely organized and delicate constructions one must be very cautious about saying *how* a given result happened; often the most that can be done is to note what parts are standing independently of others adjacent to them, and draw only such inferences as can be made from this. And even here, one should use judgment in ruling out the eccentricities of stability that are so often seen in the ruins of fires and explosions. For the purposes of indication as to the truth one may, I think, assume that the same case occurring twice is not such a mere eccentricity.

¹ It may be of interest to note that the fire of the scaffolding on a corner of the main façade was not the cause of the destruction of the roof, as is sometimes stated, for there were four other centres of the fire (*L'Art et les Artistes*, p. 44). Nor was it the cause of the burning straw inside, which caught from the shells (*Les Monuments français détruits par l'Allemagne*, p. 57).

TABLE OF FEATURES AND PRINCIPLES

RESULTS NOTED, BY "FEATURES"	ILLUSTRATIONS	PRINCIPLE, CONFIRMED OR NOT
1. Ribs carry vault and so concentrate its thrust.	Figs. 1a, 4b, 6c, 8, 17.	Logic, confirmed. Revelation of structure, confirmed.
2. Do not carry vault in lower portion.	Figs. 2b, 4c, 13 (2 holes).	Logic, contradicted. Revelation of structure, contradicted.
3. Diagonal ribs give more support to vault than others.	Figs. 1a, 2c, 5, 6abd.	Revelation of structure, contradicted. Balanced thrusts, confirmed.
4. Flying arch—no thrust on vault.	Fig. 2d.	Balanced thrusts, contradicted.
5. Flying arch—upper tier too high, slight value as abutting vault.	Figs. 2f (5 same).	Balanced thrusts, contradicted.
5a. Flying arch—upper tier broken.	Figs. 2d, 14a.	Same as 5.
6. Buttress pinnacle—very light.	Fig. 14.	"Pinnacle" theory, contradicted.
7. Vaults—adjacent nave compartments <i>not</i> interdependent.	Figs. 1c, 6a.	Balanced thrusts, contradicted.
8. Vaults—importance compared to wall has been exaggerated.	Figs. 2k, 18.	Theory contradicted.
9. Vaults—height of filling.	Figs. 2ce, 3b, 4a, 5, 6b.	Theory confirmed.
10. Vaults—this portion of conoid self-supporting, independent of ribs.	Figs. 2b, 5, 6b.	Revelation of structure, contradicted.
11. Level crowns.	Fig. 7.	Theory well illustrated.
12. Cells adjacent to diagonal rib not interdependent.	Figs. 1, 2c, 4c, 6d.	Balanced thrusts, contradicted.
13. Lightness of construction, Soissons.	Figs. 2c, 5, 6 def, 18.	Lightness, confirmed.
14. Thickness of vault construction, Rheims.	Fig. 13.	Lightness, contradicted.
15. Vaults independent of wall.	Figs. 2k, 4a, 18.	Mediaeval point of view.
16. Arches of clerestory not interdependent.	Figs. 2, 3, 5.	Balanced thrusts, contradicted.

RESULTS, NOTED BY "FEATURES"	ILLUSTRATIONS	PRINCIPLES, CONFIRMED OR NOT
16a. Pier shafts—not structurally essential.	Figs. 1f, 4d, 5.	Logic, contradicted. Revelation of structure, contradicted.
17. Wall—thinness.	Figs. 1d, 3c, 6 ef.	Lightness, confirmed.
18. Wall—importance, between clerestory windows.	Fig. 2k.	
19. Suppression of wall.	Fig. 1bc.	Theory confirmed.
20. Organized framework of structure.	Figs. 1e, 5, 6g.	Theory confirmed.
21. The roof: importance.	Figs. 2, 12.	Revelation of structure, contradicted.
22. Transverse wall under aisle roof.	Fig. 6h.	Revelation of structure, contradicted.
23. Parapet, decorative, its importance.	Figs. 7, 12.	Logic, contradicted.
24. Suppression of clerestory wall, decorative rather than logical.	Figs. 7, 12.	Logic, contradicted.
25. Tower at crossing, ¹ light, decorative.		Logic, contradicted.
26. Lack of correspondence, nave and façade.	Figs. 7, 8, 9, 10, 11.	Logic, contradicted.
27. Structure nearly complete without vaults.	Figs. 2, 19.	Mediaeval point of view.
28. Upper tier of flying arch hardly abuts vault filling.	Figs. 2def, 6e.	Mediaeval point of view.

Before beginning our discussion, it may be said that inasmuch as the theory is based on a few of the very greatest cathedrals and is especially exemplified by them,—although by most critics it is no longer limited to them,—we shall confine our evidence to what may be selected from ruins of that class.

Something indeed might be learned from the many smaller churches illustrated in "*Les Monuments*"² but the evidence is much scattered and many of the churches are of later date or from regions where Gothic was less perfectly developed.

As a matter of fact it was two of the greatest monuments, Rheims and Soissons, which underwent the most terrific bombardments, and it is from them that our evidence will be drawn.

¹ See Viollet-le-Duc's illustration of Rheims in the thirteenth century, Sturgis and Frothingham, III, p. 47.

² A. Alexandre, *Les Monuments français détruits par l'Allemagne*, Paris, 1918.

Laon, Amiens, Beauvais, all most fortunately remain intact. Noyon, Senlis, and scores of small churches are more or less destroyed. At present, illustrations of these are not available, but, valuable as the studies of them must be from the point of view of historical development, they can hardly have the bearing of this great pair on the fully developed theory.

At this point let us pause a moment for a further examination of the very interesting case shown in Figure 1. If we knew with any certainty where the shock or explosion had occurred that caused this wreck and in what succession the parts had fallen, we should be able to obtain much real light on the principles of Gothic. In fact, this seems to be the most important piece of ruin that we have in all the available illustrations.

Let us then see what steps, if any, we may safely take in our inquiry.

In the first place, we may say that it was not merely the vault that was hit and carried the other parts down with it, for in Figure 2, we see that the vaults may fall without disturbing any of the rest of the structure.

If we assume that the lower tier of the flying arch, which as



FIGURE 1.—UPPER PART OF THE GREAT BREACH:
SOISSONS.

is shown by Figure 2, is the essential one for the stability of the vault, was broken or indeed both tiers, *without the wall or pier being hit*, we assume a case of great interest, but of extremely small probability, for the hit would have to be right on the lower tier buttress or close beside it. Moreover we might expect to find



FIGURE 2.—THE NAVE: SOISSONS.

some "spatters" on the inner face of this buttress or the adjacent flying arches or buttresses, which do not appear (Figs. 1, 2, 3). The spatters on the left side of the buttress itself (Fig. 3) would hardly be caused by so direct a vertical hit. Again by our theory we should expect the vault to have burst outward, whereas the pile of débris (Figs. 4, 5) seems to indicate that everything fell vertically, the pile being greatest where there was most masonry

above it. So although one is at first tempted to say that here for once we have a case of the buttress being cut and the vault and pier bursting out and crashing down in consequence, we should be running counter to too many probabilities to have any real confidence in it.

If, however, we suppose that a shell in a somewhat slanting direction struck the vault of the aisle or the wall somewhere near the line of the pier at a height anywhere between the abacus and

the top of the triforium, we might perhaps get this result. The pier would fall inward, breaking off the flying arches and letting the vault down with it. The aisle vault might be broken by the shell, as shown in Figure 1, or by the falling buttress. The spatters might be diminished by the soft mattress-like aisle-roof (Fig. 6). The occasional spatters seen in Figure 1 on the inside might be caused by fragments from the *débris* as it struck. This hypothesis appears to satisfy the conditions found and still permits quite a range of possibilities for the shot itself.

It is unfortunate however that it seems to be the most likely, for if this was what happened, it gives us really no interesting light on our theory, except perhaps on the lightness of construction and organization of the whole bay. The foregoing analysis however will serve to show how difficult it is to guess just how the different cases of collapse occurred and how unsafe it is to deduce much from that branch of our inquiry.

Having observed carefully the facts exposed in the illustrations of the ruins and having correlated them according to the features to which they belong and the principles involved, let us now return to the general theory of Gothic and its open questions



FIGURE 3.—NORTH SIDE OF THE CATHEDRAL:
SOISSONS.

(p. 42) and see how far the one is borne out by them and the others answered.

The strongest impression left by such a study of these churches is certainly that of their organized framework. The more their scheme is laid bare in these terrible sections, revealing interior and exterior together and all in perspective, the more we feel their ingenious



FIGURE 4.—NAVE AND NORTH AISLE: SOISSONS.

system, so different from the ruins of all other architecture. We see for instance a great buttress intact but severed from the body of the structure in as clean cut a division as that of an amputated limb (Fig. 1, e). We see a whole bay wiped out but the breakage lines following almost as closely the structural and architectural divisions as if it had been a vertebra (Figs. 1a, 3b, 5). We see indeed a more organic structure than we

had expected in that the vaults themselves have come away, leaving the walls clean (Fig. 2). In fact we are struck with wonder that masses of steel and the highest explosives could be hurled into this rich, almost fragile, network of stone and yet the destruction be so limited, so confined to units actually struck.

On further reflection, however, we come to realize that the framework revealed here is not altogether that of the theory.

We have been used to thinking of the structure as composed of vaults, piers, and buttresses but we now realize that the clerestory arches and the wall between them and, at Rheims, above them (Fig. 7), are also finely organized and quite as finely built (Fig. 2). We feel, in view of the ease with which the nave vaults can be stripped away, that this arched wall must be added to our statement of the frame.

Again, we see the façade as a great and massive structure quite capable of standing alone. In fact so nearly is it a complete composition in itself that it is hard to realize in looking at it from the rear that it is a façade and not a separate structure (Fig. 8). If we now look at another ruin near by, St. Jean des Vignes at Soissons (Figs. 9, 10), a relic of the French Revolution and one of

the most beautiful though least known ruins in Europe, the same fact comes home even more strongly. Finally at Rheims (Fig. 11) the flying arches of the nave seen through the openings of the towers show the slightness of the relation between the whole composition of the façade and that of the nave, as at Soissons we saw the lack of structural relation. This whole matter of the façade however is also a question of exception to the principles of logic and revelation of structure, as well as of organic frame, and therefore will be considered further in those connections.



FIGURE 5.—THE WEST END, INTERIOR: SOISSONS.



FIGURE 6.—THE GREAT BREACH AND BUTTRESS:
SOISSONS.

As regards the organic principle we must consider that perfectly as these façades express it within themselves, they now appear more clearly than ever as a frank departure from it in relation to the main body of the church.

And now we find ourselves asking the inevitable question, the crux of the whole matter. Was "*logic*" then,—the logic of the essential in construction,—the guide as well as the law by



FIGURE 7.—ABOVE THE VAULTING AFTER THE DESTRUCTION OF THE ROOF:
RHEIMS.

(*L'Art et les Artistes*, p. 50.)

which and under which these cathedrals were designed? Undoubtedly, we shall answer, their designs were penetrated to a very great extent by architectural reasoning, and especially so in the vaults and their ribs, for these are essentially an affair of construction. Possibly just because the problem was so difficult,



FIGURE 8.—THE TOWERS SEEN THROUGH THE DESTROYED NAVE: SOISSONS.
(Drawn in 1918 by the author.)

so rigid, it was here handled very simply. The absolute protection from a burning roof afforded by them to the rest of the structure, as proved at Rheims, the shape of the vaults, their small stones, their lightness, their level crowns, their conformation to the stilted wall ribs to concentrate their thrust, all seem to be based on an ideal of construction only. And yet we know

that in their most fundamental quality, that is their immense height, they were *not* controlled by logic, but by an ideal. This ideal desire for height, and always greater height, was the source of some of the greatest problems, in fact



FIGURE 9.—THE BACK OF THE TOWERS OF ST. JEAN DES VIGNES, BEFORE THE LAST BOMBARDMENT.

the cause of the whole system of exterior abutment with its risks and its costly construction.

But when we find in the statements of the theory that this architecture was primarily based upon the complex dialectic of the middle ages,¹ or that, to quote one of the latest histories,² "not an atom of the structure was irrelevant — nothing vital was left to whim or chance. The laws of beauty were subordinated to the laws of scientific life" — we feel the challenge of absolute logic. What then do we actu-

ally see? At Rheims we see a great wall rising to some distance above the extrados of the vaults and running all around the perimeter of the building (Fig. 7), and, above this again, a rich

¹ A. K. Porter, *Beyond Architecture*, pp. 37ff.

² Sturgis and Frothingham, III, p. 29.

and purely decorative parapet with pinnacles,¹ a very considerable effort on the part of the builders (Fig. 12); we see the construction for the light and purely decorative tower at the crossing which must have played an immense rôle in the general exterior effect of the original thirteenth century edifice. Again we see (Fig. 11) through the arches of the towers, more clearly than before, the vast difference between the size and shape of the body of the church and its façade. All these are, quite simply, not "dialectic," not "the laws of scientific life." Such sweeping extensions of the principle do not fit the cathedral at all. The truth is that the building is logical, but not exclusively so.

Now the designer who did these things was not governed entirely by logic, strict economy, and the like. Not at all. He departed from "logic" altogether at times and built into his cathedral parts which meant extra load on his slender piers and great expense, "purely unnecessary expense" as the current phrase has it. Being that sort of a man, he undoubtedly did other things in the building which were also as "unlogical" and decorative.



FIGURE 10.—ST. JEAN DES VIGNES: SOISSONS.

¹ Compare the very low parapet at Soissons (Fig. 3), which is all that necessity requires, as I have personally proved.

With this established one may perhaps obtain a light on some other hypotheses,—or problems. One of these is the suppression of the clerestory wall. Was it the fascination of the logical conclusion in finding the wall unnecessary that drove such a man to



FIGURE 11.—THE FAÇADE AFTER THE BOMBARDMENT: RHEIMS.

substitute a glass wall for a stone one, and this in spite of the fact that the glass must certainly have been more expensive as well as less permanent? For whatever the expense of the glass, nothing is simpler or cheaper in France today than plain ashlar, such as this wall would have been, and, judging from the mediaeval skill in masonry, it could hardly have been otherwise then. And if we are still in doubt, we may compare the amount of continuous wall which he built *above* his clerestory arches, quite contrary to

the structural requirements. Here also one may well doubt the part of logic and feel free to trust the lure in the beauty of the glass itself as the real motive for suppression of the wall.

Closely connected with the principle of logic is that of the *revelation of structure* for esthetic effect. Here again the ruins

generally illustrate the theory and confirm it in its broad application. In the vaulting, the manner in which the breakage has occurred, as well as its extent, does confirm strikingly the theory that the ribs carry the vault cells and are not only real functioning members, but are the most important part of the vault. The cases where the whole cell has fallen as far as the rib, are not only more numerous than those of the opposite kind, but the latter themselves usually show breaks following the rib's direction, although they may not come quite to it. In this, moreover, the facts seem to disprove Mr. Porter's view¹ that the function of the

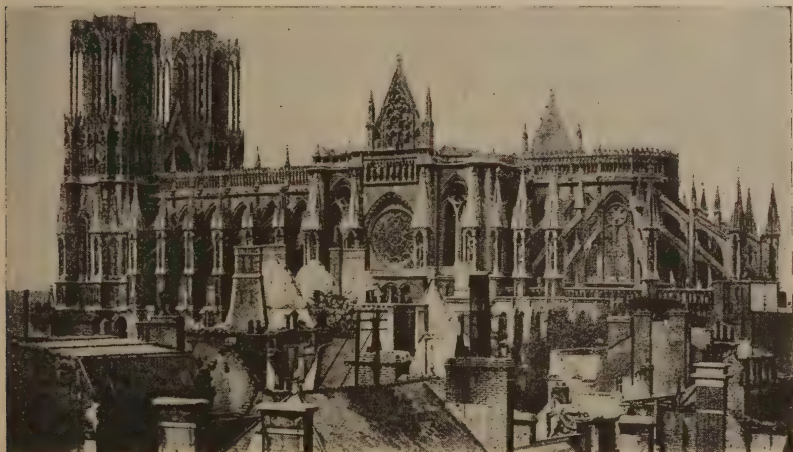


FIGURE 12.—THE CATHEDRAL FROM THE SOUTH AFTER THE DESTRUCTION OF THE ROOF: RHEIMS.

ribs in supporting the vault has been "grossly exaggerated," being primarily for support of the wooden centering, and Brutails' statement² that the rib was in theory for support but in fact for appearance.

In regard to this general principle, however, there seems to be some confusion of thought. In the case of the vaults and their ribs it is apparently a principle of convenience, to be made use of where there was an effect to be gained. It is a principle expressed in much other architecture, as in the dome of the Pantheon, the high undecorated architrave emphasized as the working member of the Greek entablature, and so on. Similarly the

¹ Porter, *Construction of Lombard and Gothic Vaults*, p. 16.

² Brutails, *op. cit.* p. 153.

Gothic builders emphasized their vault ribs. Indeed there is an almost inevitable quality in the way the beautiful Gothic effects are bound up with their necessities, as, for example, the unsurpassed perspectives of their interiors, due to the structural working out of their aisles, transepts, and ambulatories, which yet seem, and perhaps are, necessarily imposed by the ritual. In fact we may truly say that the chief sources of esthetic effect in the interior are indeed those of the revealed structure, with the one notable exception of the stained glass.

It sometimes happens that such a principle is transformed in the mind from a means to an end in itself. Then it becomes thought of as a *law* of style and universal in its application. This is what seems to have happened in regard to this principle of revelation of structure and to have given rise to the point of view found in the books. Now this in fact amounts to ascribing certain feelings and a mental point of view to the mediaeval builders, which makes such statements humanly interesting at once, and gives the history of Gothic a dramatic, even a moral character. But it is at least venturing into another field, and one may raise the question whether the attribution of such a point of view should not be confirmed by, if not based on, the evidence of documents as well of executed designs. Among the historians this seems to be lacking and even in the quotations of so thorough an author as Mr. Porter, who goes the most deeply into documents to explain the mediaeval point of view, nothing of this sort appears. For its confirmation therefore we are limited to the monuments themselves.

Now actually we find that some of the cases often considered as revealed structure are not the real structure. At Soissons the single shaft on the lower story of the nave piers does not really support the vaulting shafts and, in turn, the vaults above (Figs. 1f, 4d, 5). The objection to this as an accidental case would be met by the fact of the very slight connection between the shaft and the pier, shown in the break,—not enough for the shaft to add to the strength of the pier. It by no means follows that the shaft is not good design, only that it does not express the facts of this structure; it is in fact an eye-satisfying fiction, although perhaps, a proper one.

Again let us take the case of the flying arch and its buttress. If we carefully notice the point of abutment of the arch's upper tier at Soissons (Figs. 2f, 6e) in relation to the height of filling of

the vaults (Figs. 2c, e, 4, 5, 6b) we shall see that probably only the lower edge of the flying arch abuts the filled or solid portion of the vault; the upper edge appears to abut, if the term may be used, only the wall. At best this is hardly a sufficiently good connection to warrant the second tier of the buttress; we may at least question whether it, like the pier shaft, is not an expression of structure which does not correspond to the real fact.

In the second place, we find in our ruins some cases of structure which are not revealed. One of these might have been seen before, though it is now made more clear than by drawings,—the filling of the lower half of the vault conoid and the possible transference of the thrust from the ribs to this solid portion (Figs. 2b, 5, 6b).

The word possible is used advisedly, for from the appearance of the filling (Figs. 2c, 4a, 6d, 18) it appears of doubtful value for any such purpose, and more like a mere addition of weight. It seems from the illustrations as if it were the heavy walls of the upper part of the solid portion, self-supporting almost without the rib, that were its strength. Thus the

solid portion performs a quite different function from the rest of the vault, a function which is not revealed.¹ This is in one way a small point, but in another it is not, the design as executed contributing very largely to that impression of the vaults being supported entirely on the interior. For this the ribs and shafts also were in large part designed.

Another similar case is found at Rheims where one photograph² shows apparently cross-bracing walls above the vault, and these abutted by the upper tier of the flying arch. This



FIGURE 13.—SHELL HOLES IN VAULTS:
RHEIMS.

(*Mon. franç.* Pl. 4, 1.)

¹ The larger stones in the shell of this part hardly express such a difference.

² Kimball and Edgell, *History of Architecture*, p. 287, fig. 144.

interesting construction appears in only one of the Rheims photographs and apparently did not occur at Soissons. It seems to show that the upper tier of the flying arch did not perform the part that it appeared to perform but another, which was not revealed.

Again there are the diagonal ribs which in both nave (Figs. 1, 2, 6, 13) and aisle seem to limit the breakage, in other words to be the strongest ribs of the vault, or the limits of its structural divisions. And yet this is not revealed by a larger section of the diagonal

ribs; on the contrary it is the heavy and wide transverse rib which appears to express such a function.

Then there is the structure of the roof, so much in evidence in the illustrations of Soissons (Fig. 2). Shall we dismiss this as "not the true roof,"¹ not important enough in the whole design to demand any revelation of its structure or of its method of support? We know its weight was about two-thirds that of the vaults,² a load which the designers had certainly to reckon with. Also, it did have a decorative value as may

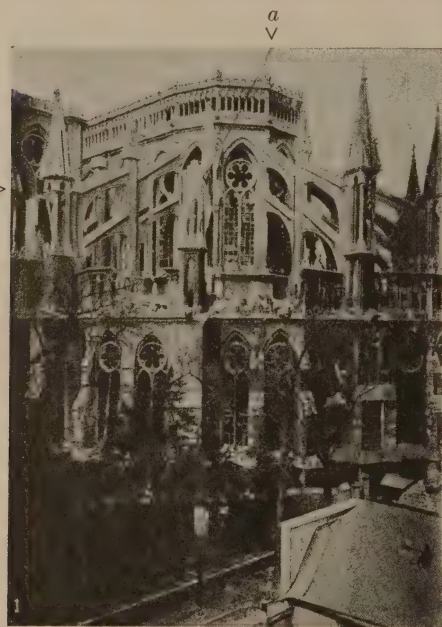


FIGURE 14.—THE APSE: RHEIMS.

(*Mon. franç.* Pl. 3, 1.)

clearly be seen by the comparison of Rheims before and after its destruction (Fig. 12). And it was an organic structure, with its trusses corresponding to vault ribs, a structure which one may suppose could have been expressed, if the builders had wished it, instead of leaving it the plain unified surface that they did.

Finally there is the façade itself. The discussion about the greater or less lack of its relation to, or revelation of, the main

¹ Moore, p. 170.

² In St. Ouen at Rouen the load of roof on each pier is 12,000 kg.; that of vault, 20,000 kg. Guadet, II, p. 344, fig. 1096.

body of the building is not new; our clearness of vision is, however, now greatly increased. At Rheims, the flying arch-buttresses of the nave seen through the openings of the towers show the slightness of the relation between the whole composition of the façade and that of the nave. In St. Jean des Vignes at Soissons, the nave of which was destroyed many years ago, the façade appears as a great and massive structure in itself (Figs. 9, 10). In fact so nearly is it a complete composition that one can hardly realize in looking at it from the rear that he is not seeing the front. Finally we study the same point in the cathedral of Soissons from a photograph taken before the final bombardment (Fig. 15) and from this sketch, taken after the Aisne drive of June, 1918 (Fig. 8). Here we are look-

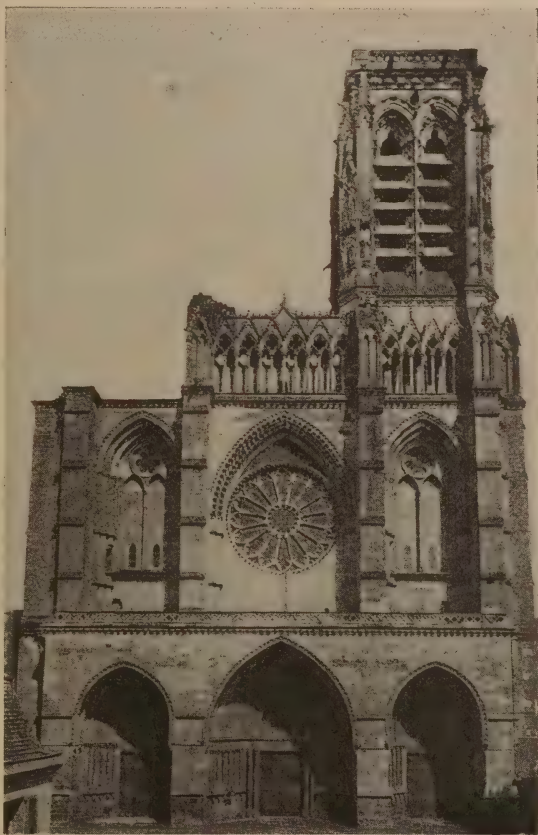


FIGURE 15.—THE FAÇADE BEFORE THE BOMBARDMENT: SOISSONS.

ing through the break in the nave toward the back of the façade mass and realize with astonishment that the comparatively small arch in the centre corresponds to the outline of the whole nave vault, the arches on either side being wholly outside the nave, on the back of the tower base. We then turn to the façade (Fig. 15) and see the expression, so simple and direct, of something which is not at all the building itself. Is it possible that to the

men who built these façades revelation of structure was a controlling principle in the sense that it has become for us, in our books? If we quote the charming design of Sainte-Nicaise,¹ now known only from drawings, as a truly developed Gothic façade, then these are not, nor are most of the others. Why force the principle into a law which leaves such façades as these to be its exceptions?

In all these cases, the builders must have been perfectly aware of what they were or were not revealing. The pier shaft, the upper tier of the flying arch, which they looked down upon and climbed over for months, if not years, during the construction, the different quality in the lower end of the vault, the cross walls under the roof, the more important diagonal ribs, the roof construction,—all of these they knew with an intimacy that no modern designer knows in his buildings. And by all of them the principle of all-pervading conscious revelation of structure is denied. Certainly it will be wiser in future to limit ourselves to a far simpler statement.

And now we come to the principle generally called the *balanced thrust*, sometimes considered the most fundamental one of the style.² Its simplest case, and the best understood, is that of adjacent arches, where the haunch of one shoulders the haunch of the next and so on down the nave. According to the theory, if one is removed the rest tend to fall, like a line of dominoes, and it is by thus balancing the thrusts of these haunches that they all stand. Now, if we look at the clerestory and nave arches of Soissons (Figs. 1, 2, 3, 5), we see a case in which the arches on either side of a breach stand perfectly well without their neighbors' counter-thrust, and this in spite of such terrific shocks to the whole frame of the structure, as could have caused these successive ravages.

The next case of adjacent thrusts balancing each other is supposed to be between the adjacent cells of the vaults or two adjacent diagonal ribs. Now as between the cells, this principle does not seem to be proved at all by the manner in which the cells remain (Figs. 1, 2c, 4c, 6d). It appears to be the ribs, especially the diagonal ones, which carry the vault cells and the thrust of the latter stops on them. In the cases of the diagonal

¹ Sturgis and Frothingham, III, p. 110.

² Sturgis and Frothingham, III, p. xxix.

ribs that are intact, the evidence seems to be conflicting. In Figures 2c and 6d only one diagonal vault rib remains, a contradiction of the theory; in 2b, 4a, and 6a there is the lower solid half of the vault conoid remaining, which may balance the adjacent rib, a confirmation of the theory. In the aisle vaults (Fig. 1aa) the diagonals of two vaults are both intact, but we have already reasoned that the counterbalancing diagonals that met on the missing pier probably went down from some cause other than the action of the thrust of one after the other was destroyed.

As to the main compartments of the nave vault, they do not balance each other, as may be seen by comparing some of the successive steps by which they fell (Figs. 2, 5, 8, also in table, No. 7). In searching for all the possibilities of the balanced thrust this case should be taken into account. It is sometimes stated, on the other hand, that these compartments were not intended to balance each other and that this was an advantage in construction, which now appears to be the true view.

But it is the case of the flying arch and the vaults, that is most cited as the outstanding example of this principle. Now in the sense that we have been using it, there is no balance of *active* thrust here worth mentioning. If the flying arch exerted much thrust against the vault, when the latter fell, the former would push the slender wall in. But we have here several cases where there has been no such effect on the wall at all (Figs. 2d, f, 6f). There was always equilibrium, of course, and the vault's thrust against the flying arch, but this latter is, in fact, little more than a strut or prop, that receives this thrust and transmits it to the large outer buttress. Transmission of thrusts rather than balance is what we find to be the truth of the case.

This may be seen more clearly by a drawing (Fig. 16)¹ in which the size and position of the buttress as ideally worked out by structural mathematics, are shown, together with an actual buttress of the church of St. Ouen at Rouen. Here the flying arch, as scientifically calculated, appears in its real character of a prop pure and simple. Of course, the lines of this ideal prop are not the only ones that will serve. The actual system is an artistic approximation, a roundabout but more pleasing method of performing the same function, just as the complicated broken curves of the great English timber roof trusses approximate

¹ After Guadet, fig. 1096. The temporary emergency supports built under fire at Rheims are reported to be of this form also.

the straight lines of certain truss forms, by virtue of which they perform their work.

At this point the question arises inevitably whether the Gothic designers knew what this mathematical form, this scientific

minimum, was. Undoubtedly¹ they did not know how to find it mathematically. Whether they knew that their usual form was as far removed from the bare necessity as it was, may be guessed from our inferences about their revelation of structure. If we believe, as it seems we may, that they were men who designed in general conformity to the actual structure, but enlarged freely upon this where it seemed inadequate, we may equally believe that they had learned in their earlier examples,² or in their workshops, approximately what the necessary lines of the flying arch were, but preferred to satisfy the conditions by freer, more architectural forms, such for instance, as those found at Soissons.

What then shall we say of the general principle? Simply, that in this case, it was really a transmission of the vault thrust to a buttress, placed at some distance,

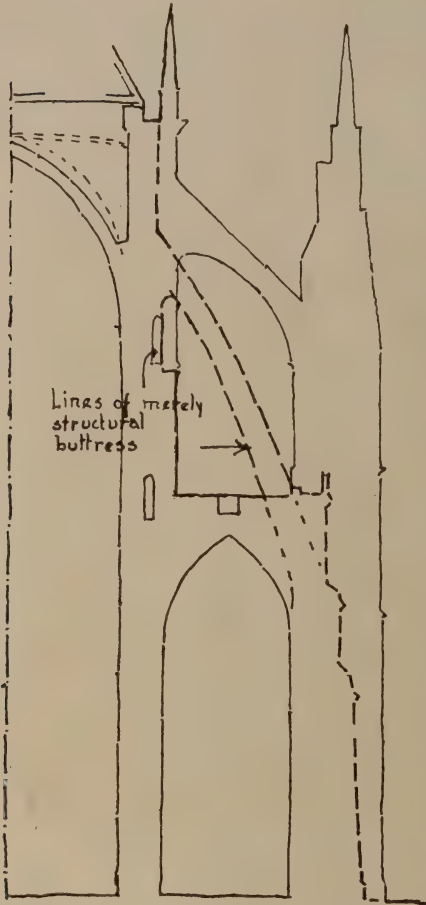


FIGURE 16.—SECTION THROUGH PIER,
ST. OUEN: ROUEN.

(After Gaudet, II, Fig. 1096)

while there was some balance of thrust of adjacent diagonal ribs on the pier.

¹ Gaudet, II, p. 331.

² For example, at Noyon, illustrated in Moore, fig. 74.

But at the same time, we should recognize this transmission of thrust as a really great innovation, as original as it was bold, and as successfully handled as it was characteristically Gothic. Instead of the "living forces" constantly at work throughout, "combating each other," we may better confine ourselves to the actual vaulting system and the transmitted thrust, as being really a new architecture; and we shall find in its skill, originality, and beauty sufficient cause for our admiration and study.

There remains one more general principle, the *lightness of construction* and its determining cause. Among the smaller ruins, there are several striking cases of the lightness of vault construction, the cells being mere shells of such thin stones that they have rattled down almost like tiles (Fig. 17). And at Soissons, the nave vaults are so light that some of them seem to have collapsed, ribs and all, from so slight an explosion that it did not destroy the roof at the same time. It may have been that a shell merely pierced the roof (Fig. 2m) and the vault or that one entered through a window (as at Fig. 2d) and shattered the delicate cells and ribs from below. If

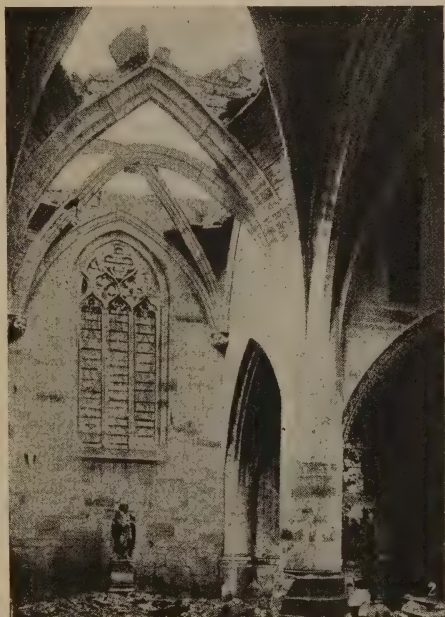


FIGURE 17.—THE CHURCH AT NETTANCOURT.
(*Mon. franç.* Pl. 13, 2.)

one asks whether the two vault-bays adjacent to the great breach did not follow its vault of themselves in obedience to the principle of balanced thrusts, we may refer to Figure 5, a photograph at an earlier date, and see this one bay gone and the others intact. At Soissons, the walls, also, are extremely thin (Figs. 1d, 3c, 6ef), especially the upper wall, which is only the thickness of one stone, and that merely thicker than the plate tracery by some slight reveal at the billet mould (Figs. 2f, 6e).

At Rheims (Fig. 13), on the other hand, the vaults are decidedly heavy and show no signs of collapsing. Evidently, the shells have torn only a definite hole in the splendidly built vault.¹ This same strength is seen in the great wall and parapet (Fig. 7). In fact, it is commonly said in France that the vaults of Rheims had the heaviest cross sections of any cathedral, that it was built like a fortress, and that it is due to this, that the vaults have not fallen altogether in the later bombardments. It might be added that it was due also to the devotion of the French soldiers, who climbed up and built the necessary supports of masonry under bombardment when the continual shelling of the crossing-vault threatened to succeed in wrecking the whole centre of the edifice.

What the underlying motive of the general lightness of Gothic construction was, may be disclosed to some extent by a comparison of Rheims with Soissons. The latter is in every respect a less costly, as it was a less important cathedral. A mere glance at the façade, at the pier capitals, at the roof parapets will illustrate this. Rheims was built to be the royal, the most splendid church of France, and the same lavishness shown in all these parts was carried into the construction. Conversely, the lightness of the construction of Soissons was clearly due to the same economy shown in the other portions.

This lightness of construction, however, is another matter from the lightness of effect, carried much further at Rheims, in its clustered nave piers, lighter flying buttresses, slender turrets on the façade. All this was, of course, not at all an economy and was done from a love of the effect itself, one of the most beautiful characteristics of Gothic.

Of the various outstanding problems in regard to the features of the cathedrals, most have been noticed already. Just what the controlling reason was for adopting the pointed arch in preference to the round, and whether this query, seemingly so purely archaeological, may be elucidated by the ruins, remains to be discussed. We have, indeed, seen that the diagonal ribs generally stand while the others fall (Table, No. 3). Now, these diagonals in the aisle are round arched (Fig. 1a), and in the nave nearly

¹ Of the later destruction, we have unfortunately no illustrations. No post cards of the interior were published as late as May, 1919, and it was forbidden to enter when I was there in October, 1918, on account of falling stones.

so (Fig. 5), to while all the other ribs are pointed (Figs. 4, 5). Apparently then, as far as construction went, the advantages were with the round arch, and the pointed was adopted for other reasons, such as reducing the thrust and the possibility of coördinating the arches and vaults, or beauty of form, or both. But the evidence of the ruins is by no means final in determining which was the stronger form of arch. It should be considered rather as one of a series of facts which further knowledge of the construction and of its history may some day establish.

One of the other interesting developments in the style is the change of the pinnacle on the buttress from a purely useful to an almost purely decorative purpose. In the chevet of Rheims (Fig. 14) there are two of the lofty pinnacle canopies destroyed and a third which lacks one of its columnar supports. All this has happened without much surrounding damage except to a light parapet, thus giving evidence of the real lightness of these constructions in spite of their solid appearance. Although this is hardly proof, for one could hardly expect the loss of even so high a pinnacle to cause the collapse of its buttress, yet it is a strong indication that this feature as early as the date of Rheims was known to be unessential to stability, and was actually, as it was in appearance, a decorative feature.

One more observation, and that of a general character, remains to be made. Among our first impressions, after studying the later illustrations of Soissons (Fig. 2), was the importance of the structure that remained when the vault had fallen. This came as a distinct surprise in view of the lengthy studies of the vaulting and its supports with which our works on Gothic are filled. One rather expected to find that the exterior wall which enclosed the vault-conoid was but an incident of the latter and would fall with it, that the church consisted of nothing but vaults, piers, and buttresses, and the enclosing "walls of stained glass." But here the observer counts the vaults of four out of the seven nave bays gone—two of them literally sloughed away—and yet the greater part of the structure is still erect. He sees the walls standing with all the composition of the nave complete, except for the timber roof instead of the vaults (Fig. 18), and he remembers with dismay the abhorred fallacies of Fergusson¹ about the "deceptive stone ceilings." He realizes, too, that this was the way the building looked in the middle ages during the

¹Fergusson, *History of Architecture*, I, p. 321.

long years when it was under construction, though more or less used for worship, until the final stage, when the vault was built in,—under the protection of the roof. He recalls moreover that to the mediaeval designer of the building that roof and those walls, the weight of the triforium, the aisle roof and its supports, the wind-bracing, and the disposal of floods of water and snow, all were a part of his problem,—and that he solved them all without, or in spite of, his vaults. And so he comes away at the last with a new sense of the building as a whole, con-

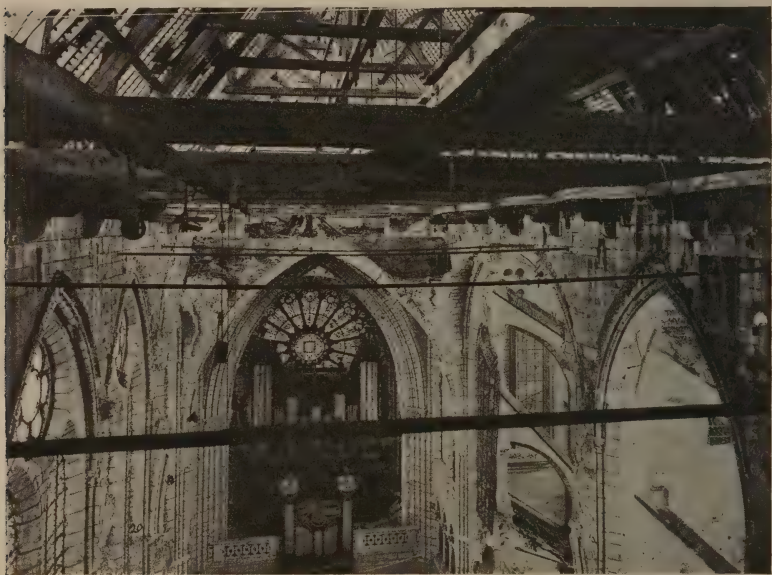


FIGURE 18.—INTERIOR OF THE ROOF: SOISSONS.

ditioned it is true in its fundamentals by the vault, but a great construction and a great design in and of itself.

In closing this survey of these two great examples of the theory of Gothic, what summary can we make? In the first place we see that the theory is truest, as it is most generally agreed upon, in its insistence on the organization of the structure, and that this is indeed wonderfully shown in the way it acted under the stress of bombardment.

In the next place, while the ruins reveal that the vaulting follows closely the necessities of construction, they reveal other

portions and other relations of parts which are contrary to them. These cases are not indeed the most important, but they are sufficient to refute the theory that constructional requirements carried to their logical conclusion can alone account for these designs. They are due to esthetic reasons almost entirely, and they indicate the probable importance of those reasons throughout.

The principle of balanced thrusts is far less true, and it should apparently have a minor place. It seems clearly at variance with the facts in its principal example of the flying arch and it seems to apply only to certain of the vault ribs.

The apparent revelation of structure seems to be over emphasized, to judge from these ruins, especially in certain cases such as the pier shafts, flying arch, and some features of the vault, often quoted as proving it. It should be considered, as I believe it must have been by the mediaeval builders themselves, as an architectural resource rather than a principle; to be freely enlarged upon, compromised, or denied, when the esthetic effect of the whole seemed to require it.

The lightness of the construction is strikingly confirmed, but it appears rather as a matter of necessity in the actual construction, and a matter of architectural design in the exposed portions.

In all that has been said so far, we have limited ourselves to the theory; when we have found the facts at variance with it we have emphasized not what the architecture *was*, but what it was *not*. Thus we seem to have stripped it of one quality after another. We have apparently been destructive, seizing upon its terrible misfortunes to prove it somehow wrong.

Let us now turn the page. What seems destructive is in reality freeing these beautiful creations from the too rigid shackles of classification devised by scientifically-minded men of letters. Sweeping assertions built upon the enthusiastic hypotheses of Viollet-le-Duc or on literary theories of architecture do only harm to an art such as this, and cause revulsion instead of devotion among its admirers. A looser, freer, truer theory is the only one that will fit such a history of the human spirit as is built into these cathedrals. If in so doing we are to deprive the historian of his "most satisfactory" chapter, where "all rests on undeniable mathematical and scientific premises,"¹ so much the worse for him. Of all great architecture, this is the most imaginative, the

¹ Sturgis and Frothingham, III, p. 9.

most founded on a purely ideal program. While developed with wonderful reasoning, that immaterial program,—namely religious sentiment, with its accompanying feeling for height and mystery,—is at the base of it all and is felt throughout.

In thus breaking sharply with certain points of the writers' theories, we are in no way taking a step backward, but rather looking toward the future. These ruins seem inevitably to suggest another statement of Gothic, not a part of this present paper, as it may come to be written with our changing point of view, a statement in which the ribs of the vaults, the shafts of the piers, the actual shape of the flying arches, the all-including openings, and finally the façade, will find their true explanation as parts of a purely architectural design, absorbing, yet dominating the requirements of prelate and mason alike.

ROGER GILMAN.

RHODE ISLAND SCHOOL OF DESIGN,
PROVIDENCE, RHODE ISLAND.

ADDITIONAL NOTE ON PP. 49-51

The following quotation from *Guides Illustrés Michelin des Champs de Bataille* (Paris, 1919), section on Soissons, p. 21, shows how the ruin at Soissons, discussed on pp. 49-51, was caused.

"At the beginning of February, 1915, a shell . . . struck the second column of the nave and cut into it at 4 m. above the ground. The portion above with the capital and the stone courses carrying the load of the vault ribs collapsed, dragging down in its fall a section of the triforium and back wall. This ruin was soon increased. At the end of March the vaults of the nave and aisle, formerly held by the broken column, no longer having their support, fell; the whole (section) of the triforium, the window, the exterior flying arch, the wood framing, and the roof of the nave bay crashed down also."

This, if correct,—and there is no reason why so circumstantial an account should not be believed,—although it overthrows my surmise as to how the break occurred (pp. 50 f.), confirms the general position of this paper, that there was less balance of thrusts and less revelation of structure than usually supposed.

THE CARMELITE MADONNA OF PIETRO LORENZETTI

THERE are two documents on record for the year 1329 which concern the Sienese painter, Pietro Lorenzetti. The first,¹ dated October 26, has to do with the granting, by the "Gran Consiglio de la Campana," of a petition offered by the prior and brothers of Sta. Maria del Carmine, through the good graces of the Novi. In this petition, the good brothers requested of the community of Siena financial aid in paying for "a certain honorable altarpiece, and a very beautiful one, in which the Virgin Mary and the most Blessed Confessor Nicholas, and the apostles and martyrs, confessors and virgins, have been painted most exquisitely and earnestly by master Pietro Lorenzetti of Siena, which altarpiece is said to have cost 150 gold florins." The Council granted them fifty pounds. The second document,² dated December 29, records the payment of the fifty pounds promised the monastery on October 24.

This altarpiece, though one of the grandest executed by Pietro Lorenzetti, has been considered by critics on Sienese painting as lost, as the only record on hand is the statement made by Milanesi³ that it was sold into England in 1818. But this reference must have applied to the side pieces only and possibly to panels of the predella. Two of the predella fragments, one representing an angel appearing in a vision to a dreaming monk, the other depicting the granting of the charter to the Carmelites, are now in the Academy at Siena.⁴

The Madonna of this altarpiece, though considered as lost, has never left Italy and has been hanging in the Academy at Siena ever since its removal from the church of Sant' Ansano outside the Pispini Gate at Siena. The panel,⁵ in its present

¹ Milanesi: *Doc. Sen.* 1, 194.

² *Id. ibid.*

³ *Id. ibid.*

⁴ Nos. 83, 84.

⁵ No. 39.



FIGURE 1.—THE CARMELITE MADONNA OF PIETRO LORENZETTI: SIENA.

condition (Fig. 1), shows the Madonna and Child enthroned in the centre, with Saint Nicholas on the left and Saint Anthony the Abbot, with his staff and pig, on the right. There are four angels standing behind the Madonna's throne; the two central ones hold lilies. On the edge of the throne at the Madonna's feet runs the following inscription: "PETRUS LAURETI DE SENIS ME PINSIT A. D. MCCCXXVIII."

The evidence, besides the date 1329, that this is the Carmelite Madonna, rests on the following facts: On the lower right-hand corner of the Virgin's throne we read the inscription: "ELYAS PHA," in other words "Elijah the prophet." This inscription was originally used for the figure now called St. Anthony, just as on the left-hand corner we have the inscription, "S. NICOLAUS," for the figure of the saint above it, who has been lucky enough to retain his identity. But what is the significance of Elijah in this picture? Why was he put in this altarpiece? He is surely an unusual apparition in Italian art.

Elijah was the patriarch saint and the supposed founder of the Carmelite order.¹ But there has been much controversy about this in the church. The legend runs that the early Carmelites built a monastery near the fountain of Helias (Elijah), and also an oratory to the Virgin, thence called "Our Lady of Mount Carmel." Elijah was, therefore, the saint of greatest importance to the Carmelites, with the exception of the Virgin. His presence would be practically imperative in any Carmelite altarpiece, and similarly he must be associated with that order when found in such a conspicuous position as in this altarpiece. He is also found in other Carmelite altarpieces, as for example in the altarpiece by Giovanni d'Asciano in the oratory of San Niccolo near the Carmine at Florence.² Elijah's relation to the Virgin is emphasized in Pietro's altarpiece by the gesture of the Christ Child towards him.

Originally, then, this Madonna was painted for a Carmelite monastery. The date is that of Pietro's commission to do an altarpiece for the Sienese Carmelites in 1329. Beyond doubt the so-called Ansano Madonna is in reality the lost Carmelite Madonna. Later, when the picture for some reason or other changed hands and the Madonna was separated from the remainder of the altarpiece, the Elijah was made over into a S. Anthony with staff, pig, and bell to suit the church or donor into whose hands it had fallen. I need hardly add that the document calls for a S. Nicholas in the picture, who is duly identified by the inscription on the panel. Finally, in the costumes of the figures, and especially in the light mantle of the Virgin over the dark tunic we have the colors of the Carmelites. The predella below,

¹ Moroni: *Dizionario di Erudizione Stor.-Eccl.* X, 44 ff, 52 ff.

² Note also that S. Nicholas is a favorite saint of the Carmelites.

though entirely repainted, might, if cleaned, yield other interesting connections.

Since this altarpiece contained, according to the document, "apostles, martyrs, confessors, and virgins," which must have been in the side panels, it was presumably an elaborate Majesty similar to Ambrogio Lorenzetti's at Massa. This would then explain the dignified and hieratic position of the Virgin. And since Milanese must have had some evidence for asserting that the Carmine altarpiece was sold into England, the sides may actually have gone there.

ERNEST T. DEWALD.

PRINCETON UNIVERSITY,
PRINCETON, NEW JERSEY.

GENERAL MEETING OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA

DECEMBER 29-31, 1919

THE Archaeological Institute of America held its twenty-first meeting for the reading and discussion of papers at the University of Pittsburgh December 29, 30, and 31, 1919, in conjunction with the American Philological Association. Three sessions for the reading of papers were held and there were three joint sessions with the American Philological Association. The abstracts of the papers which follow were furnished by the authors.

MONDAY, DECEMBER 29. 2.30 P.M.

1. Miss Helen H. Tanzer, of Hunter College, *The Roman Marriage Custom as Described in Lucan*. (Read by Professor G. M. Whicher.)

In the account which Lucan gives (*Pharsalia*, II, 352-371) of the remarriage of Marcia to Cato the Younger after the death of Hortensius, the orator, to whom he had ceded her, we have an almost photographic description of the confarreate marriage ceremony. The poet represents Marcia as begging Cato to allow her to return to him if only that "*liceat tumulo scripsisse: 'Catonis Marcia'*." Cato agreed, and though the time was not appropriate and the war required his attention, the marriage took place but with only the most necessary portions of the ceremony, the rest omitted by force of circumstances. It is here that Lucan has done us a service, for he mentions both what was done and what was left undone, thus furnishing material for commentators and archaeologists. "No festive garlands or wreaths hung from the doorway, no white fillets bound the door posts, the usual torches were not there, nor the high couch with its ivory steps and gold embroidered hangings; no matron with high-crowned headdress lifted her lest her feet touch the threshold. No flame colored veil lightly hid the bride's timid blushes nor covered her downcast countenance; no jewelled girdle held down her flowing robes, no collar gracefully encircled her neck, no tunic covered her arms. The usual witty sallies were not uttered nor the Sabine jests. There were no relatives or friends assembled, they were united in silence, satisfied with Brutus alone as witness and assistant."

There followed parallel passages from other Latin writers cited by way of illustration, and comments from commentators by way of explanation.

2. Miss Cornelia G. Harcum, of Rockford College, *Roman Cooking Utensils in the Royal Ontario Museum.*

This paper had as its main interest the collection of Roman cooking utensils in the Walter Massy Collection in the Royal Ontario Museum, most of which were found in Egypt. A comparison was made of ancient with modern cooking utensils. The materials, mode and place of manufacture, decoration, and details of workmanship of these utensils were discussed. The most interesting set in the Royal Ontario Museum is a very complete kitchen equipment which was discovered in what appeared to be the remains of a burned house near Thebes. It contains twenty-seven pieces of bronze in excellent preservation. The date of these utensils is probably about the first or second century. Of special interest also is a series of iron frying-pans with folding handles which were found in Egypt and belong to the late Roman period. The pans are hammered and the workmanship is exceedingly good. As they were discovered with other military remains the logical conclusion is that they formed a part of the soldiers' equipment and that the folding handles which are rather rare were designed to make the kits more compact. A bronze ladle, in this collection, with an extension handle shows a decided variation from the usual form. Illustrations were shown of a great variety of cooking utensils from the common *olla* or porridge pot to the *harpago* which was used for taking meat from a kettle.

3. Professor David M. Robinson, of Johns Hopkins University, *A Roman Terracotta Savings-Bank at the Johns Hopkins University.*

Children's savings-banks or money boxes are mentioned nowhere in Greek or Latin literature. If they were, they probably would be called *thesauri* or *loculi*. We know them from archaeology, and nearly fifty are now listed. They have been well discussed by Graeven, 'Die thönerne Sparbüchse' (*Jb. Arch. I. XVI*, pp. 160-189). In addition to the one late Greek example from Priene mentioned by Graeven is another in the Athens Museum (No. 5264), but all the other specimens are Roman and have been found in the western half of the Roman world—in Italy, France, Germany, England, and the Netherlands. There are four main types, that in the form of a small chest, that in the form of a vase (cf. Plautus, *Aulularia* and Horace, *Sat. II*, 6, 10), that with a flat circular form, resembling somewhat the body of a Roman lamp, with a design similarly placed in a medallion on top, and that in the shape of a bee-hive. Of the chest type, there is one unpublished example in the Stoddard Collection at Yale University. Of the third class, there is an example at Columbia University with Hermes standing inside a shrine with two columns. Another was seen in 1908 in the Arndt Collection in the Glyptothek at Munich by the writer who knows eight of this type. Of the bee-hive or last type, there are several specimens. One which was in the Castellani Collection, and had disappeared, is at Columbia University. It represents Hermes, *lucrorum potens et conservator*, standing on a base within a shrine with four columns, the caduceus in his left hand and pouch in his right, and a cock beneath his right hand, and has a slit above for putting in the coins. Another specimen in America of the

early second century A.D. is at the Johns Hopkins University and is probably that sold at auction with the Saulini Collection in 1899. It represents a draped Hermes standing on a base within a shrine with two columns, caduceus in right, and pouch in left hand, and has the slit above the shrine. On the back is an inscription which should be read *Bas. Augu.* (*Bassieni Augurini*). The Saulini catalogue reads *Las. Augu.* and Graeven (*Jb. Arch. I. XVI*, p. 181) wrongly suggests *Pas. Augu.*, though Passienus is another form of Bassienus (cf. Schulze, *Zur Geschichte Lateinischer Eigennamen*, pp. 213 ff.). A specimen from the Esquiline in Rome is probably from the same mould. In Munich in the Antiquarium is another unpublished example of the bee-hive type. Slides were shown of many examples of all types; and their purpose and relation to the lamp-industry and the significance of the scenes on them were discussed.

The origin of the bee-hive type was especially considered, and Miss Harrison's suggestions were discussed (cf. *Themis* pp. 396 f; *Essays and Studies presented to William Ridgeway*, 1913, pp. 136 ff.). There is a resemblance in shape to Mycenaean bee-hive tombs, to the primitive underground dwelling, and its counterpart above ground at Orchomenus, a type which has survived to the present day in Kurdistan, in Switzerland, in Italy, and even in America as well as in Greece. These bee-hive tombs were called even in the days of Pausanias *thesauri*. Sophocles in the *Ichneutae* calls Cyllene's cave-dwelling where the wonder-child Hermes is kept, a *thesaurus*. So also the omphalos as a tumulus or tomb had the shape of a *thesaurus* and when Varro in *De Lingua Latina*, VII, 17, compares the omphalos at Delphi to a *thesaurus* he may be thinking of one of these bee-hive banks and not of a bee-hive tomb, a type which hardly survived underground till Roman times except possibly in the Tullianum and the Mundus.

4. Dr. Stephen B. Luce, of the University Museum, Philadelphia, *Etruscan Antefixes from Cervetri and Corneto in the University Museum, Philadelphia*.

This paper will be published in full in a later number of the JOURNAL.

5. Dr. Leicester B. Holland, of Philadelphia, *Primitive Aegean Roofs*.

This paper will be published in full in a later number of the JOURNAL.

6. Miss Marion E. Blake, of Cornell University, *A Suggestion to Teachers of Epigraphy*.

The speaker pointed out some of the difficulties in teaching epigraphy. Photographs of the stones or of squeezes are unsatisfactory, and squeezes themselves are too fragile for regular class-room use. Photographs of the reverse of the squeeze are clear, but confusing to the student because the letters are reversed. The device of photographing the back of the squeeze on the back of a film and then printing by direct contact will reverse the print and make the

inscription read correctly. Lantern-slides could be prepared or prints put into the hands of the students, or even a text-book of half tones compiled for the class-room. Slides were shown demonstrating the advantages of the method advocated.

7. Mr. E. T. Dewald, of Princeton University, *A Lost Painting by Pietro Lorenzetti*. (Read by Professor G. W. Elderkin.)

This paper is published in full in the present number of the JOURNAL, pp. 73-76.

TUESDAY, DECEMBER 30. 9.30 A.M.

1. Professor Howard Crosby Butler, of Princeton University, *Report of the Committee on the Protection of Historic Monuments in the Near East*. (Read by Professor G. M. Whicher.)

No abstract of this paper was received.

2. Professor William N. Bates, of the University of Pennsylvania, *Recent Theories on the Origin of the Alphabet*.

After referring to the theories of De Rougé, Deecke, Peiser, Hommel, Delitsch, Zimmer, Grimme, von Luschan, and Hogarth the writer discussed the so-called Sinai script and the theory of A. H. Gardiner; the potsherd writing of Egypt, and the theory developed by Flinders Petrie in various papers; and the pictographic and linear script of Crete, and Sir Arthur Evans's theory. The relation of Minoan script to the characters of the Cypriote syllabary was touched upon, and incidentally the theories of Naville, Schneider, Lidzbarski, Sundwall, and Pretorius were briefly considered. Other theories such as those of Breasted, Pilcher, Stucken, and Bauer were also explained. Much progress has been made during the last twenty years towards solving this old problem, and two points may be regarded as established as a result of recent researches. 1. No theory of the origin of the alphabet can now be considered seriously unless it can show actual forms and explain their development; the time has gone by for mere speculation. 2. We can now say with considerable confidence that the Greek alphabet was not derived from the Phoenician, though it may well have been influenced by it. A definite solution of the problem of the source of the alphabet is by no means impossible, and, in fact, does not appear to be far off.

3. Professor R. A. MacLean, of McGill University, *Some Ancient Sites in Mesopotamia*.

This paper deals with some ancient and modern sites in Mesopotamia along the Tigris and the Euphrates,—sites which I became more or less familiar with during a residence, or perhaps I should say a mere existence, of two and a half years in that country during the war. On the Euphrates Anah and Hit are both of ancient origin. Anah interests us for the opposition which its fortress

gave to Julian, while Hit, or Is of Herodotus, is famous for its production of bitumen. Hit is probably the Charmande of Xenophon.

The country between the Tigris and the Euphrates in the vicinity of Bagdad is of interest chiefly for its connection with Xenophon and the route of the Ten Thousand. It is difficult to place with any degree of accuracy the sites of the Median Wall, the four canals, and the cities of Sittace and Ops, as there are few existing remains. The key to the whole situation lies, I think, in the location of Ops. Following Ross, Miss Bell, and others who have made investigations concerning this and other places in Mesopotamia, I have concluded that Ops was a little north of the junction of the river Adhaim with the Tigris. In that case the Adhaim would correspond to the river Phyeus mentioned by Xenophon.

The other sites mentioned along the Tigris are more easily determined. There are, it is true, no traces of Seleucia, but its site is known from its relation to Ctesiphon which is marked to-day by the huge fragment of an arch. Further up the Tigris, the Larissa of Xenophon is the ancient Nimroud, while Mespila, or the modern Mosul, is on the site of the ancient Nineveh.

4. Professor Edgar L. Hewett, of San Diego, California, *America in the Evolution of Human Society*.

No abstract of this paper was received.

5. Mr. Albert M. Friend, Jr., of Princeton University, *Manuscripts, Ivories, and Goldwork in the Abbey of St. Denis under the Patronage of Charles IV*. (Read by Professor G. W. Elderkin.)

The paper reconstitutes the school of illumination, ivory carving, and goldsmiths' work active in the Abbey of Saint-Denis near Paris under the patronage of Charles the Bald (840-877). The manuscripts have already been grouped, but under the assumption that they were illuminated in the Abbey of Corbie near Amiens, an assumption poorly supported by the provenance of one uncharacteristic example. On the other hand the eclectic character of the illumination shows that all the manuscripts must have been done at some centre where there was a library containing examples of each of the earlier Carolingian schools, and also, in view of unmistakable classic and Byzantine influences on the school, some manuscripts of Eastern and Italian provenance. Such a collection is to be found in the library of Charles the Bald, which must have been deposited either at the royal residence at Compiègne, or in the Abbey of Saint-Denis, of which Charles was secular abbot, and where he spent a large portion of his time when not travelling. We know that his collection contained specimens of the school of Tours and of the Franco-Saxon school; there is also good reason to suppose that it contained the masterpiece of the Ada-group—the Soissons Gospels—and the Utrecht Psalter which represents the style of Rheims.

The school produced, besides the "Corbie" manuscripts, a group of ivory-carvings already isolated by Goldschmidt as the "Liuthard-group," to which may be added two ivories in the Morgan collection in the Metropolitan Museum, representing respectively Christ enthroned with Peter and Paul, and the Virgin enthroned and adored by angels (*A.J.A.* XXIII, 1919, pp. 394 ff.),

wherein the lyric pen-style of the school is considerably toned down by adherence to some Eastern model which the sculptor had before him. Two more may also be added to Goldschmidt's group: the book-cover of the Missal of Saint-Denis (Bibl. Nat. lat. 9436), and a plaque in the South Kensington Museum.

The gold-work of the school has never been assembled, but it may be identified in four pieces: the front cover of the Ashburnham Gospels in the Morgan collection; the ciborium, or field-altar, of Arnulf, emperor of Germany, 887-899, the front cover of the Codex Aureus of St. Emmeran in Munich, and the antependium of the high altar of the Abbey of Saint-Denis itself. Two of these pieces are traceable to the Abbey, viz., the antependium and the cover of the Gospels of the St. Emmeran Codex, a manuscript belonging to the group and made for Charles the Bald. This and the fact, attested by a writer of the ninth century, that the abbey possessed at that time a famous school of goldsmiths, makes probable the attribution of the four pieces of gold-work mentioned, as well as the manuscripts and ivories discussed above which are closely allied to the gold-work in style, to the Abbey of Saint-Denis.

This attribution is confirmed by two peculiarities of iconography which connect the school definitely with the abbey. The first is the appearance in these works of a profusion of angels, reflecting the influence of the Celestial Hierarchy of the Pseudo-Dionysius the Areopagite, identified at the period with Saint-Denis of France. This manuscript was translated at the order of Charles the Bald by John Scotus Erigena from the Greek manuscript sent to Louis le Debonnaire by the Byzantine emperor Michael in 824, and deposited in Saint-Denis. Echoes of the same work occur in poems of Scotus, and appear also in the works of the school in the multiplication of angels, with occasional indication of the different orders into which the Pseudo-Dionysius divided them.

The letters of Dionysius the Areopagite, translated at the same time by Scotus, contain a description of the eclipse at the time of the Crucifixion, by the vision of which the Areopagite was converted. According to this description the moon advanced until it covered the sun and then returned whence it came. This explains why in the Crucifixions of the school the moon is persistently facing right, out of the composition, as if returning on her course. The detail undoubtedly reflects the interest in the incident on the part of the monks of Saint-Denis who confused the Areopagite with their patron saint, and its appearance on the works of the group,—miniatures, ivories, and gold-work,—serves to confirm the location of the atelier which produced the manuscripts of Janitschek's "Corbie" school, the ivories of Goldschmidt's "Liuthard" group, and the four pieces of gold-work cited, in the royal Abbey of Saint-Denis, where the school must have flourished in the last half of the ninth century under the patronage of Charles the Bald.

TUESDAY, DECEMBER 30. 8 P.M.

Joint Session with the American Philological Association. Subject: Archaeology and Classical Philology.

1. Professor Harold N. Fowler, of Western Reserve University, Greece.

2. Professor Morris Jastrow, of the University of Pennsylvania, *Mesopotamia*.

3. Professor Gordon J. Laing, of the University of Chicago, *Italy*.

WEDNESDAY, DECEMBER 31. 9.30 A.M.

1. Mr. W. B. Dinsmoor, of the American School of Classical Studies at Athens, *The Monument of Agrippa at Athens*.

The pedestal of Agrippa, usually dated 27-12 B.C. on account of the inscription on the west front, has sometimes been attributed to earlier periods on insufficient evidence (orientation, relation to Propylaea, etc.). There is, however, valid evidence for an earlier dating. The inscription, as Fauvel pointed out in manuscript notes, is cut on a surface roughened by the erasure of an earlier inscription, in five lines but with much larger letters, of which a few traces are preserved. Then the plinth of the quadriga has hoof cuttings for two successive groups of horses, one apparently earlier than Agrippa. Finally, the architectural forms and construction of the pedestal are those of Pergamene, not Roman, work. The true date may, therefore, be 178 B.C., when Eumenes II and his brother Attalus seem to have won Panathenaic chariot victories. We may assume that on this same pedestal was set up Marcus Antonius as the New Dionysus, probably in 38 B.C. when he was victor in the Antonian Panathenaea; Cleopatra as Isis would seem to have been set up beside him in 32 B.C. For in 31 B.C., on the eve of the battle of Actium, statues of Antonius and Cleopatra, which replaced colossi of Eumenes and Attalus, were hurled down by a hurricane (Plutarch and Dio Cassius. By confusion with the groups dedicated by Attalus I, this story was sometimes localized above the theatre, and it was said that a Dionysus of the Gigantomachy was hurled down; but probably in these earlier Attalid groups, as in the Niobid group, no victors were represented). Agrippa, arriving in Athens shortly afterward, found the pedestal empty, and his statue was erected in the place of his defeated opponent.

2. Dr. T. Leslie Shear, of Columbia University, *The Lion Group at Sardis*.

This paper will be published in full later.

3. Professor G. W. Elderkin, of Princeton University, *A Re-examination of Archaic Laconian Grave Stelae*.

This paper will be published in full later.

4. Professor George H. Chase, of Harvard University, *Two Vases from Sardis*. (Read by Dr. James M. Paton.)

This paper will be published in full in a later number of the JOURNAL.

5. Miss G. M. A. Richter, of the Metropolitan Museum of New York, *The Subject of the Ludovisi and Boston Reliefs*. (Read by Dr. James M. Paton.)

This paper endeavored to show that the widely adopted interpretation of the Boston relief as the settlement of the dispute between Aphrodite and Persephone for Adonis rests on insufficient evidence and presents many difficulties. A new interpretation was advanced, based on the supposition that the Boston and Ludovisi reliefs are pendants or parts of one monument.

6. Mr. Carl W. Blegen, of the American School of Classical Studies at Athens, *The So-called Temple of Hera at Tiryns*.

7. Mr. Carl W. Blegen, of the American School of Classical Studies at Athens, *Ephyrean Ware*.

These two papers will appear in the account of the excavations at Korakou, Corinth, shortly to be published.

ARCHAEOLOGICAL NEWS¹

NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

WILLIAM N. BATES, *Editor*

220, St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

BULGARIA.—Recent Discoveries.—In *Arch. Anz.* 1915, cols. 218-235 (13 figs.) B. FILOW gives a summary of recent archaeological finds in Bulgaria. In a neolithic settlement on the hill Kajadermen, near Shumen, similar in character to that on the hill Denef, near Salmanovo, there were found a large clay model of a rectangular house with pitch-roof and round openings for windows and doors, and a vessel in the form of a four-footed animal with wide-open mouth. On the floor of one house the hearth and a hand mill with movable stones for grinding were found. Several early Christian churches have been excavated and they show some peculiarities of plan, such as a "horseshoe" apse, that are found in churches of Asia Minor. On the side of the Red Church near Perushtitza there are two churches, one above the other. Among the single finds there may be mentioned: votive reliefs to Hera and the Thracian Horseman on which the latter is called *ἄγριος*; about a dozen pieces of Roman jewelry, necklaces, armlets, etc. of gold and semi-precious stones, found in a child's coffin, some of which are very fine work and certainly imported; a marble relief of a Roman doorway with arched opening between pillars which support an architrave and pediment; parts of a bronze tripod with figures of Silenus and busts of Dionysus; a bronze statuette of Venus, 19 in. high, nude, drying her hair, excellent work, from Ratiariae; a curious Roman gravestone with tripod and heraldic dolphins in relief and a huge pine cone on top; two terracotta facing-tiles with Medusa heads and anthemions, from a large building of the fifth century B.C.; about 200 gold coins of Justin and Justinian; silver coins of Alexander the Great, Philip III, and Antiochus I, and Roman

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor BATES, Editor-in-charge, assisted by Professor C. N. BROWN, Miss MARY H. BUCKINGHAM, Dr. T. A. BUENGER, Professor SIDNEY N. DEANE, Professor HAROLD N. FOWLER, Professor HAROLD R. HASTINGS, Professor ELMER T. MERRILL, Professor LEWIS B. PATON, Professor A. S. PEASE, Professor S. B. PLATNER, Professor JOHN C. ROLFE, Dr. JOHN SHAPLEY, Professor ARTHUR L. WHEELER and the Editors, especially Professor MARQUAND.

No attempt is made to include in this number of the JOURNAL material published after December 31, 1919, but the publication of summaries of articles in foreign periodicals not received during the war is begun.

For an explanation of the abbreviations, see pp. 118-119.

denarii of the first and second centuries. A tentative reading of the recently discovered Thracian inscription makes the dedicator one of the Tilataei, *Τιλαταῖοι*, of Thucydides.

ELAEUS.—Excavation of the Necropolis.—During the Gallipoli campaign of 1915 French entrenching operations opened a necropolis on the hill at Eskihissarlik near the mouth of the Dardanelles. Systematic exploration, often under fire, was carried on from July 8 to September 30. The results are set forth in detail in *B. C. H.* XXXIX, 1915, pp. 135–240 (12 pls.; 10 figs.) by J. CHAMONARD, E. DHORME, and F. COURBY, while a brief account of a later campaign from October 7 to December 12 is given by Lieutenant J. LEUNE. Extracts from two letters by Dr. LEUTHREAU are appended. The necropolis must have belonged to the Athenian colony, Elaeus, the site of which is thus fixed at the point chosen by Choiseul-Gouffier. The burials were generally in stone sarcophagi; less often in large pithoi. Both sarcophagi and pithoi were completely covered by earth. If stelae were erected, they have disappeared. The necropolis was in use at the end of the sixth and during the fifth century. Some of the tombs were reused in the third or second century. In the first campaign 38 sarcophagi and 18 pithoi were uncovered. A complete inventory of the contents is given. There is also a brief list of the contents of nine pithoi found in the second campaign. The objects buried were chiefly small vases of clay and glass, terracotta statuettes, ornaments, some lamps, and a few tools. The earlier vases were Attic, the later from Asia Minor.

MACEDONIA AND THRACE.—Inscriptions.—In *B. C. H.* XXXVII, 1913, pp. 84–154 (17 figs.) C. AVEZOU and C. PICARD publish fifty-two inscriptions collected in Macedonia and Thrace in 1911–1912. The first group (34) was then in the museum established by the Turks in the school Sultanieh in Salonica. It includes a very fragmentary letter of M. Aurelius and L. Verus dated in 165 A.D., an edict of an imperial magistrate, dedications, and sepulchral inscriptions, many of the latter accompanied by reliefs. Two stones bear the Thracian horseman, and three the symbolic raised hands. One inscription seems to refer to a Mithraic cult, and another to the cult of oriental deities, among whom is Hermanubis, whose name appears here for the first time in an inscription. The other inscriptions are from Abdera (10), including a stele with four decrees of the second century B.C.,—one of proxeny and three in honor of Romans,—Maronea (6), and Trajanopolis ad Hebrum (3). *Ibid.* p. 447, the authors add notes to their article. *Ibid.* XXXVIII, 1914, pp. 63–70, M. HOLLEAUX comments on two of the decrees in honor of Romans from Abdera, and suggests modifications in the restorations of the editors.

NECROLOGY.—A List of Deaths.—In *R. Arch.* IX, 1919, p. 397, X. records the death of a number of German archaeologists in addition to those (Conze, Helbig, etc.) already mentioned since 1914. They are H. Latterman (August 6, 1914); H. Kohl (September 24, 1914); S. Sudhaus (November 22, 1914); K. Hadaczek (December 19, 1914); C. Klügmann (January 18, 1915); R. Wunsch (May 17, 1915); G. Loeschke (November 26, 1915); F. Hauser (February 20, 1917); Botho Graef (April 9, 1917); G. Körte (August 17, 1917); Hermann Winnefeld (April 30, 1918); and the following, the dates of whose death are not given: E. Borrmann, D. Fimmen, K. Körber, M. Meurer, F. Ohlenschläger, M. Ohnefalsch-Richter, H. von Rohden, A. Schöne, P. Weizsäcker, A. Mahler, G. Pollak, S. Wide (Sweden). The names of the following

orientalists and biblical scholars are added: R. B. Brünnow (United States), F. Fita (Spain), Eb. Nestle, R. Gregory, H. von Soden (Germany).

Clarence Bicknell.—Born near London in 1842, Clarence Bicknell died in Italy July 17, 1918. Primarily a botanist, he was greatly interested in the rock-cuttings of the Maritime Alps. His *Guide to the Prehistoric Rock Engravings of the Italian Maritime Alps* appeared in 1913 (Bordighera; 46 pls.). He left his archaeological museum to the town of Bordighera, other collections to the University of Genoa. (S. R., *R. Arch.* IX, 1919, p. 394; cf. *B. Pal. It.* 1918, p. 140.)

Xavier Charmes.—Xavier Charmes, born at Aurillac November 23, 1849, died at Paris May 5, 1919. Not an archaeologist by profession, but engaged in the administration of public instruction, he was chiefly instrumental in the reform of the Comité des Travaux historiques et scientifiques and the creation of the French institute of archaeology at Cairo, the permanent mission in Tunisia, and the mission in Susiana. (S. R., *R. Arch.* IX, 1919, pp. 392 f.)

Victor Commont.—Born at Péronne in 1866, Victor Commont, professor in the normal school at Amiens, died at Abbeville, April 4, 1918. He was devoted to geology, palaeontology, and prehistoric antiquity. His numerous articles on these subjects are scattered in various publications. (S. R., *R. Arch.* IX, 1919, p. 197.)

Gustavo Frizzoni.—Gustavo Frizzoni was born at Bergamo August 11, 1840, and died at Milan, February 10, 1919. He was a protégé and follower of Morelli, whose works he edited. He was the author of numerous articles, some of which were collected in a volume, *Arte italiana del Rinascimento* (1891), and a catalogue of the galleries of Bergamo. He left a fine collection of early paintings. (S. R., *R. Arch.* IX, 1919, p. 395.)

Georges Lafenestre.—Born at Orléans, educated at Paris, Georges Lafenestre died at Bourg-la-Reine, March 19, 1919, at the age of 82 years. He had been successively conservator of paintings at the Louvre, professor in the École du Louvre, then at the Collège de France, member of the Académie des Beaux-Arts, and conservator of the Musée Condé at Chantilly. He was primarily a poet, but also a critic of art possessed of wide knowledge and excellent taste. He was the author of illustrated works on Titian, Fouquet, Italian painting (his best work, but not completed) and St. Francis. His articles on French and Italian *primitifs*, his numerous *Salons*, and the series *La Peinture en Europe* (in collaboration with Eugène Richtenberger) all testify to his taste and knowledge; but he lacked scientific education, and he made no important discoveries. (S. R., *R. Arch.* IX, 1919, p. 396.)

Luigi Misciatelli.—The accomplished and courteous prefect of the apostolic palaces (since 1905), Mgr. Luigi Misciatelli, to whom are due several improvements in the arrangement of the collections in the Vatican, died at Rome, October 21, 1918, at the age of 67 years. (X., *R. Arch.* IX, 1919, p. 395.)

W. Max Mueller.—Professor W. Max Mueller, Assistant Professor of Egyptology at the University of Pennsylvania and also Professor at the Philadelphia Divinity School, died of heart failure in the surf at Wildwood Crest, New Jersey, July 12, 1919. He was born at Gleisenberg, Germany, May 15, 1862, studied at the Universities of Erlangen, Leipzig, Berlin, and Munich, receiving the degree of Ph.D. at Leipzig. He published a large number of articles on Egypt and Western Asia, and the following books: *Asien und Europa*

(1893); *Die Liebespoesie der Alten Aegypter* (1899); *Egyptological Researches*, 3 vols. (1906-1919) published by the Carnegie Institution as the result of three trips to Egypt; *Egyptian Mythology* (1918). He left much important material in manuscript—*W.N.B.*

Charles Fairfax Murray.—The great English connoisseur and constant benefactor of the Fitzwilliam Museum at Cambridge, Charles Fairfax Murray, died January 25, 1919. (S. R., *R. Arch.* IX, 1919, p. 395.)

Giuseppe Pellegrini.—On December 2, 1918, Professor Giuseppe Pellegrini died at Este from fever contracted while working at a Bronze Age site at Fenilletto. He was born at Loreto, March 10, 1866, and studied at the University of Bologna. He was at different times connected with the museums of Bologna, Florence, Naples, and Ancona, and since 1907 was Professor of Archaeology at the University of Padua. He took part in many excavations and published many archaeological papers, especially in *Not. Scav.* (F. BARNABEI, *Not. Scav.* XV, 1919, pp. 207-209).

Charles Ravaisson-Mollien.—Charles Ravaisson-Mollien died in May, 1919. He had been conservator adjunct of ancient sculpture in the Louvre. He had studied carefully the ancient statues, and was the author of most of the labels on the pedestals. He also published (six folio volumes, 1880-1891) the manuscripts of Leonardo da Vinci in the Louvre. He was the author of a limited number of articles in the *R. Arch.* and other periodicals. (S. R., *R. Arch.* IX, 1919, p. 394.)

Adolphe-Joseph Reinach.—In *R. Arch.* IX, 1919, pp. 191-193, is a notice by SOLOMON REINACH of his nephew, Adolphe-Joseph Reinach, who fell in battle, August 30, 1914. Born at Paris in 1887, he took advantage of all possible opportunities for education. As a member of the School at Athens he showed unusual ability. The list of his writings, which is included in the notice, is evidence of remarkable fertility of thought, not merely of exceptional industry. His death is a great loss to classical scholarship.

Pierre-Henri Requin.—The Abbé Requin, conservator of the Museum of the Popes, at Avignon, died toward the end of 1917. He made important discoveries relating to the history of art in the county of Venaissin during the Renaissance. He was the author of a *Histoire de la faïence de Moustiers* (only Vol. I) and a *Dictionnaire des artistes comtadins*. (X, *R. Arch.* IX, 1919, p. 394.)

Teresio Rivoira.—One of the most original of writers on architecture, Teresio Rivoira, died March 3, 1919, at the age of 68 years. His great work, *Architettura Lombarda*, appeared in 1901 and was translated into English by G. M. Rushforth (1910). Rivoira finds the origin of the mediaeval architecture of western Europe not in the East, but in Rome and northern Italy. In 1914 he published his *Architettura Musulmana*, and at the time of his death was finishing a general history of architecture in Italy to the seventeenth century. (Mrs. EUGÉNIE STRONG, *London Times, Literary Supplement*, March 27, 1919; *R. Arch.* IX, 1919, p. 396.)

Antoine Héron de Villefosse.—In *R. Arch.* IX, 1919, pp. 381-390, is an obituary notice of Héron de Villefosse by S. REINACH, with a selected list of his most important writings. Antoine-Marie-Albert Héron de Villefosse was born December 8, 1845, and died June 15, 1919, at Paris. Upon leaving the École de Chartes in 1869 he was made attaché in the department of antiquities of the Louvre. He became conservator in 1886 and retired with the title of

director in 1918. He was active in caring for the treasures of the Louvre in 1871 and also in the great war of 1914-1918. His activity as epigraphist and scholar was great in France and in the African colonies. He was honored by learned societies and the government, not only in France, but in other countries as well. His writings are numerous and important, lacking perhaps in creative imagination, but scholarly, accurate, and sound. The unfortunate purchase of the "tiara of Saitaphernes" is almost the only error he committed in his long and beneficent career.

PAPHOS.—A Tetradrachm of Nicocles of Paphos.—In *Num. Chron.* 1919, pp. 64-65 (fig.) E. T. NEWELL records the discovery (by F. M. Endicott) of the name ΝΙΚΟΚΛΕΟΥΣ (doubtless the famous king of Paphos) engraved in minute letters on the locks of the lion-skin headdress of Heracles on a coin of the Alexander-type. This should be the first instance of any ruler except Alexander himself, or his immediate successor, Philip III, venturing to put his own name in full upon coins of this type. It was doubtless an early assertion by the Paphian monarch of his independence.

PERINTHUS AND SELYMBRIA.—A Collection of Antiquities.—A catalogue of the stone monuments belonging to A Stamoulis of Silivri, the ancient Selymbria, is published by G. SEURE in *B. C. H.* XXXVI, 1912, pp. 534-641 (51 figs.). The collection has been gradually gathered since 1859, and is almost wholly composed of objects from the region on the Propontis about Perinthus and Selymbria. It has small artistic value, but is important from the unity of provenience. There is very little from pre-Roman times and nearly one-fourth of the monuments are Byzantine. They are divided into five groups: monumental sculpture; honorary and official monuments; votive monuments, including fifteen examples of the Thracian horseman; sepulchral monuments; indeterminate fragments. There are in all 106 numbers. All the sculpture and the more important inscriptions are reproduced, and a full bibliography is given for those previously published, about one-fourth of the whole. The bronzes and seals have been reserved by the owner for publication by a society in Constantinople.

ROUMANIA.—Recent Discoveries.—In *Arch. Anz.* 1915, cols. 236-270 (19 figs.) V. PÂRVAN publishes plans and photographs of the Roman camps at Ulmetum and Histria (Istriopolis) with a number of the more important Greek and Latin inscriptions, dating from the first to the sixth century, which illustrate history and antiquities. At Costanza also much has been learned by recent excavations about the ancient Tomi. The Greek colony of Histria was placed, like that at Syracuse, upon an island close to a peninsula. Among the recent single finds, most of which are in the National Museum at Bucharest, are a marble head from a Roman portrait statue, of heroic size, from Silistra (Durostorum) and a new piece of the Aristagoras inscription from Histria, which names further public honors and shows that the whole document was longer than has been supposed.

THRACIAN CHERSONESE.—Recent Discoveries.—In *B. C. H.* XXXVI, 1912, pp. 275-352 (2 pls.; 21 figs.) C. PICARD and A. J. REINACH publish the results of a visit in 1910 to the Thracian Chersonese and the islands of Imbros, Lemnos, and Samothrace. The route led through Sestos, Koila, Madytos, and Elaeus in the Chersonese. One Latin and six Greek inscriptions are published and a number of small objects described. On Imbros and Lemnos details:

supplementary to the collections of Friedrich are noted, including additional inscriptions. The most important of these is an archaic Attic inscription of the first quarter of the fifth century which seems to prove the presence of Athenian cleruchs on the island before 476 B.C. On Samothrace the site of the Nike was examined, but no excavation was attempted. *Ibid.* p. 670, the authors add a number of minor corrections.

SYRIA AND PALESTINE

JERUSALEM.—A Small Graeco-Roman Treasure.—In *C. R. Acad. Insc.* 1919, pp. 382–386 (fig.) S. REINACH publishes the contents of a sarcophagus recently presented to the Louvre. It was discovered in December 1899 with three other sarcophagi while the foundations were being dug for a storehouse near the school of the Israel Alliance at Jerusalem. The others had been plundered, but this was intact and contained the skeleton of a woman and the following objects: 1, two pieces of a long plain gold band which probably served as a headband; 2, a gold button ornamented with the head of Medusa; 3, a gold necklace with clasp, consisting of two garnets set in gold and twenty-six others cut in the shape of flattened double cones; 4, a gold pendant in the shape of a ring to which were attached a key, a tiny amphora, a basket, a lamp, and a pomegranate, all of gold; 5, a gold ring with a youthful male head cut on the seal; 6, three pieces of a silver vase; 7, a piece of coarse red pottery. The garnets of the necklace are Syrian. The contents of this tomb have been kept in hiding since their discovery. The objects are all Graeco-Roman.

ASIA MINOR

AEOLIS AND IONIA.—Inscriptions.—In *B. C. H.* XXXVII, 1913, pp. 155–246 (8 figs.) A. PLASSART and C. PICARD publish or discuss fifty-three inscriptions studied during a trip in Asia Minor in 1912. The stones are from Cyne and Myrina in Aeolis, and Clazomenae, Teos, Chios, Colophon, Notion, and Smyrna in Ionia. Thirty-two are published for the first time; the texts of the others are corrected or explained. Among the new texts are a considerable fragment of a law and two decrees of proxeny in Aeolic from Cyne; part of a lease from Clazomenae; a fragment of a *lex sacra* from Chios concerning the distribution of the parts of the victim; and a fragment of an honorary decree from Colophon, which gives for the first time the formulae there used. *Ibid.* pp. 448–449, the authors add notes and corrections, and J. KEIL identifies a fragment as part of the sacrificial calendar of Erythrae, two fragments of which were already known.

CNIDIAN CHERSONESE.—Inscriptions.—In *B. C. H.* XXXVI, 1912, pp. 529–533 (fig.) N. D. CHABARAS publishes eight more short inscriptions from the Cnidian Chersonese (see *Ibid.* XXXIV, 1910, pp. 428 ff.; *A. J. A.* XV, 1911, p. 410). One is on a small cup, the others are sepulchral, so far as their nature can be made out. *Ibid.* p. 667, J. HATZFELD adds a note to show that an inscription in the first article contains the name of C. Julius Theopompus, a Cnidian who obtained the *civitas libera* for his fellow-citizens from Caesar in 48 B.C.

COLOPHON.—The Sanctuary of Apollo Clarius.—In 1904 and 1907 trial excavations were conducted near the site of Colophon and the oracle of Apollo

Clarius. In 1913 the work was resumed with the aid of the French School at Athens, and in *B. C. H.* XXXIX, 1915, pp. 33-52 (2 pls.; 5 figs.) T. MACRIDY-BEY and C. PICARD summarize the results of the short campaign. Work was confined to the spot which was supposed to mark the site of the temple, but the building turned out to be merely the Propylaea, which were adjoined by a large exedra. The Propylaea were prostyle with four columns on the outside, and distyle *in antis* inside the temenos. There were three entrances in the central wall. About 125 inscriptions were found, the majority *in situ*. They are chiefly the records of the delegations sent to consult the oracle from many cities, for the most part in Asia Minor. The oracular grotto in the neighboring hills was also explored, and yielded pottery extending from primitive sherds such as are found in Troy I to Attic, Hellenistic, and Roman wares.

DASCYLIUM.—**Graeco-Persian Reliefs.**—In *B. C. H.* XXXVII, 1913, pp. 340-357 (2 pls.; 8 figs.) T. MACRIDY publishes three fragmentary reliefs found in 1907 and 1910 at Erghili near Panderma, in the region where Munro places the ancient Dascylium. The first represents in front a procession of three women on horseback with two attendants on foot, with apparently a similar group on the left end, and Persian horsemen on the right. The second shows a Persian sacrifice, and the third another procession of Persian horsemen, differing somewhat in style from the first relief. In spite of these stylistic differences it seems clear that we have here the work of Greek artists under Persian influence, executed during the last part of the fifth century, probably for the satrap residing at Dascylium. *Ibid.* p. 358, the author publishes a Hellenistic relief, representing a funeral banquet, with a fragmentary inscription from the same neighborhood.

RHODES.—**New Stamps from Amphorae.**—In *B. C. H.* XXXVIII, 1914, pp. 300-326, J. PARIS publishes 262 stamps from amphorae in the collection of the *Scolasticat des Frères des Écoles chrétiennes* at Rhodes, with brief notes. He also calls attention to certain synchronisms between the names of makers and of magistrates established by Rhodian stamps found in Athens and in Palestine.

GREECE

GREEK ARCHAEOLOGY IN 1914.—A summary of recent archaeological work in Greek lands was published by G. KARO in *Arch. Anz.* 1915, cols. 177-217. A large part of the work, both on new sites and in further study of old ones, was done by Greek officials and explorers and is reported in Πρακτικά, 'Αρχ. 'Εφ. and the new 'Αρχαιολογικὸν Δελτίον. In Athens, the Odeum of Pericles, southeast of the Acropolis and near the precinct of Dionysus, has been thoroughly studied (see *A. J. A.* XIX, 1915, pp. 345 f.; XX, 1916, pp. 360 f.). The old mosque near the Library of Hadrian has been converted into a Byzantine museum. Some work was done by the Germans in excavating the region of the Ceramicus outside of the Dipylon gate (see *A. J. A.* XX, 1916, pp. 361 f.). On the Acropolis, the construction of the Nike temple and the arrangement of its frieze have been further studied; part of the eastern portico of the Propylaea, including the roof, has been rebuilt with the original stones; the two museums have been rearranged, connected, and a large number of pre-Persian votive bronzes put on exhibition, as well as some clay vessels and lamps. An inscription dated 276/5 B.C., found in the precinct of Artemis in Salamis, is a decree

of the worshippers of Bendis, similar to one already known, of the year 249/8. The name *Ῥιθμός* is noticeable. At **Sunium** a part of the roof and pediment of the temple of Poseidon has been rebuilt and the date fixed as soon after 450 B.C. In **Boeotia**, at the Ptoan sanctuary of Apollo, much has been ascertained of the history of the place and the construction of the temple. Originally of wood in the time of the archaic statues, it was rebuilt of poros stone with terracotta trimmings in the period 550-500, perhaps by the Pisistratidae; destroyed by the soldiers of Alexander the Great it was again rebuilt on the old plan by Cassander in 316. It was hexastyle with very long cella and no opisthodomos. At **Thebes** a woman's grave of the third century B.C. with its furnishings intact has been found. A herm of Heracles of the same period, with a curious metrical inscription was found at **Thespieae**. In **Eretria** a small temple *in antis*, dedicated to Isis and associated divinities was found in the area inside of an insula of houses. It belonged to a colony of Egyptian merchants settled there. The local museums at Chalcis, Tanagra, Thebes, and other places have been much improved by repairing and rearranging the objects exhibited, bringing others out of storage and in general systematizing the work. At **Orchomenos** the side chamber of the beehive tomb with the famous spiral net pattern has been reconstructed with the original stones, the thin facing slabs of the walls, also ornamented in relief, alone being too much broken to be set up. At **Demetrias** in Thessaly inscriptions and many terracotta statuettes, mostly of the type of the Praxitelean Aphrodite were found in the sanctuary of Pasierata, who is thus shown to have been identical with Aphrodite, not with Artemis. The cult originated in Pagasae and was transferred to Demetrias with the inhabitants. The graves to which the painted stelae belonged, all later than 250 B.C., were found underneath still later Roman graves. The painted stelae themselves have been rearranged in the museum at Volo. At **Dimini** two beehive tombs were opened and found to contain skeletons, geometric pottery, and other objects. In Macedonia, the ruins of the ancient capital **Pella**, have been explored. There are some underground rock-cut chambers, also a large house built in Hellenistic times and burnt down about the time of the Roman occupation in 168 B.C. The coins date from Philip II to the Romans. Not much has been found at **Salonica**, but some late Roman graves yielded brightly painted terracotta figurines, coins, and two Charon's pennies of gold. Of the fragments of sculpture gathered in the local museum, a small statue of Hermes with the ram and an archaistic relief of a girl may be noticed. At **Dion**, a street, a theatre, a temple, and a paved agora have been found, and many inscriptions including a document of Philip V, a hymn to Asclepius, and both Greek and Roman grave-stones. At **Philippi** the French have excavated the necropolis and the theatre. The latter, the oldest part of which is of the time of Philip II, is very large and has the orchestra lower than the front row of seats. Among the inscriptions is a dedication to Isis made by a "*medicus ex imperio pro salute coloniae Iuliae Philippensis*." The worship of Sylvanus is also recorded. In the newly liberated part of **Epirus** a small amount of work was done in 1914, and some inscriptions were published. Two very ancient Christian churches in Nicopolis were excavated and identified. At **Thermon** in Aetolia two distinct strata of remains are found below that of the seventh century temple. The lowest is a settlement, of the second millennium B.C., of round and elliptical houses with one

triangular house, containing Mycenaean and local pottery and no iron. Above it is a thick layer of the débris of sacrifices mixed with geometric sherds and bronzes and a few iron weapons. This definitely establishes the sequence of the Mycenaean Bronze Age and the geometric Iron Age. The stratification and many of the objects found are like those at Olympia, but here the continuity has not been broken by an inundation such as buried the older remains there. Two of the largest elliptical buildings (22 m. and 21.5 m. long) are divided by cross walls into three chambers, and one of them has the stone bases for an exterior ring of columns, perhaps not an original part of the building but still the oldest known example of this feature. This building was standing until toward the year 600 B.C. when it was succeeded by a rectangular temple of the same dimensions, the oldest temple of Apollo. Of the buildings under the temple one was probably the palace of the second millennium B.C. and the next one, of the beginning of the first millennium, was built after the revolution which drove out most of the royal families from Greece, and was the oldest temple in Greece. It is at least the oldest well-preserved building of the geometric period. At **Corfu** remains were found of a sixth century house having an inner court surrounded by a Doric colonnade. At **Cephalonia** a second rock-cut tomb has been opened, and small articles of gold, bronze, and glass and late Mycenaean pottery found. Graves of the fifth and following centuries contained few remains of the original furnishings. Terracottas and other objects from a temple of which the foundations have not been found, show a dependence upon Elis, at least in the fourth century. At **Olympia** the German Institute has repaired and improved the museum building. The channel of the Cladeus has been regulated and a great deal has been done, especially in the northeast part of the site, in clearing up the scattered fragments of stone and placing them, so far as possible, in or near the buildings to which they belong. It was hoped to finish the Altis in 1915. At **Nauplia** a museum has been established in the old mosque and objects found at Tiryns brought there. Excavations on the island of **Cythera** have yielded pottery of the second and third Late Minoan periods, and a steatite vase with engraved spiral net pattern. Further exploration here is expected to furnish some missing links between Minoan and Mycenaean—*island and mainland*—art and culture. In **Crete** an important beehive tomb was opened at **Platanos**, southwest of **Gortyna**, which showed in the lowest stratum burnt offerings and gold and copper articles, but no evidence of cremation of bodies. In an upper stratum were unburned bodies and a rich treasure of offerings of gold, copper, ivory, and stone. Some have analogies in early dynastic Egyptian remains and many of the stone vases resemble in fineness and beauty, the art of **Mochlos**. At **Gurnes**, southeast of **Cnossus**, were graves of the transition between Early and Middle Minoan and some rough hand-made pots not like anything else known in Minoan art. At **Psychro**, near the cave which has been wrongly called the Dictæan grotto of Zeus, the British School has excavated a small Minoan town of Late Minoan I-III, which has the best preserved town plan that has been found. There are groups of houses on three sides of an open square. Archaic Greek remains lie above the Minoan, but entirely separated, as by a period of desolation between the two occupations. A beehive tomb is in the necropolis. Some excavation has been begun in Western Crete, at **Rhathymnos**, at **Atrepas** (children's graves of L. M. III, with the bodies in earthen jars and offerings of

small vases), at **Axos** (some 200 terracottas from a sanctuary of Demeter, ranging from the fifth century to Roman times), and at **Eleutherna**, where an ancient stone bridge with a pitch of 45° is still in use. In a necropolis of the sixth and fifth centuries in **Chios** the burials are in terracotta sarcophagi shaped like those of Clazomenae but unpainted. At **Phanae**, on the southern point of the island, some 50 Chian silver coins were found and the peribolos wall of a precinct of Apollo. The earlier seventh century temple has disappeared, but there are remains of the temple of 550–500, which was left unfinished like the Heraeum at Samos. This is a promising field for future work. Details of an elaborate small Ionic temple much like the Treasury of the Ionians at Delphi were found in the neighboring village of Pyrgi. The French have been active at Delphi, Delos, and Thasos, as well as in Macedonia.

ARGOS.—**The Treaty between Cnossus and Tylissus.**—In his earlier excavations at Argos W. VOLLGRAFF found, and published in *B. C. H.* XXXIV, 1910, pp. 331 f., part of a treaty between the Cretan cities of Cnossus and Tylissus, evidently made through the arbitration or mediation of Argos (cf. *A. J. A.* XIX, 1915, p. 349). In 1912 he discovered another considerable fragment joining the top of the first stone. It is published with a translation and commentary, in which are included further notes on the first fragment, in *B. C. H.* XXXVII, 1913, pp. 279–309 (pl.). At the end of the article are a number of brief notes on previously published Argive inscriptions.

ATHENS.—**Recent Discoveries.**—In *C. R. Acad. Insc.* 1919, pp. 28–37 J. SVORONOS announces three important archaeological discoveries, all of which are concerned with numismatics. 1. G. Sotiriou has discovered in Elis the location of the mint established in 1246 by Guillaume I de Villehardouin. It was in the donjon of the Frankish fortress Clairmont. 2. In the fort at Cape Sunium the ancient mint known as that of the hero Stephanephoros has been found. An archaic relief representing the hero in the act of placing the crown on his head came to light and will soon be published. 3. A small gold coin, of which a variant was previously known, has recently been discovered in Athens. It is $\frac{3}{8}$ of a hekte, and belongs to the series of gold staters which have a sacred basket as a symbol in the field. Instead of having the head of Athena as its type it has an aegis decorated with the Gorgon's head. In style it is identical with the silver coins of Demetrius Poliorcetes. In 296–294 when Demetrius was besieging Athens the tyrant Lachares melted down the sacred treasure of the Athenians for money. This treasure consisted chiefly of one hundred baskets of gold accumulated by Lycurgus and the gold, particularly the aegis, of the Athena Parthenos. Svoronos argues that the series of gold coins was made at this time, and that in the two little coins bearing the aegis we have some of the gold which once formed part of the aegis of the Athena Parthenos of Phidias.

Attic Inscriptions of the Imperial Period.—In *B. C. H.* XXXVIII, 1914, pp. 351–443 (22 figs.) P. GRAINDOR comments on thirty-seven Attic inscriptions of the imperial period, including fifteen hitherto unpublished. Five relate to Herodes Atticus and his family; eight determine with greater precision than has been possible the dates of several archons; four relate to Hadrian. The commentary is very detailed, dealing with the text, the personages named, chronology, and the correction of the views advanced by earlier editors.

The French School in 1917–18.—In *C. R. Acad. Insc.* 1919, pp. 162–180 T. Homolle reports upon the activities of the French archaeological schools at

Athens and at Rome during the year 1917-18. In Greece the inscriptions at Delphi were studied, and at Delos some interesting discoveries were made such as the complete line of the wall of Triarius erected against the pirates in 69, several new streets near the theatre, and scanty remains of the Hippodrome. Archaeologists coöperated with the French army at Salonica. In this connection a thorough study of the monasteries of Athos was undertaken and thousands of photographs made. At Rome two members of the school remained and a report of their studies is given.

DELOS.—Excavations in 1912-1913.—During 1912 the French campaign at Delos was partly devoted to examining the Stadium near the Gymnasium excavated in 1911, partly to clearing the Jewish synagogue south of the Stadium (see A. Plassart, *Mélanges Holleaux*, pp. 201-215; *R. Bibl.* XI, 1914, pp. 523-534), and partly to excavating a series of private houses east of the Stadium, which were further studied during the next year. The results are fully described in *B. C. H.* XL, 1916, pp. 145-256 (plan; 43 figs.) by A. PLASSART, who directed the work in company with the late Charles Avezou (killed in action in the East in 1915). Five houses in one insula and two in another, with their adjacent shops, were completely cleared, as well as the streets bounding them. They show the usual construction and the general character of the houses excavated elsewhere on the island. All but one are built around courts and are more than one story high, but none are of special magnificence. It is possible that the one story building, which has a peculiar plan may not have been a dwelling, but its use is unknown. Nothing indicates that the buildings are earlier than the Graeco-Roman period, and, apart from the Jewish synagogue, the quarter seems to have been unoccupied after the sack by Mithridates in 88 B.C. Each house and shop is described in detail. Against the wall at the entrance of one house is an altar, and both the altar and the wall adjacent are decorated with the most important series of liturgical paintings yet found on Delos. It includes a libation, the sacrifice of a pig, scenes from contests, apparently in honor of the Lares and Genius of the family, and a large painting of Heracles. This house was occupied in the first century by an Italian, Q. Tullius Q. f., as is shown by an inscription in Greek and Latin on the base of a (lost) statue erected by three of his freedmen. Other houses were also decorated with paintings, all of which are noted with great precision. The only sculpture worthy of note was a Hellenistic herm with the head of a youthful satyr. A novelty in Delos is a large and deep (*ca.* 6.15 m.) well with a subterranean staircase leading down the interior to the water. When discovered the water was 1.50 m. deep, and reached to the twenty-third step.

Inscriptions from the Gymnasium.—Thirty-one inscriptions found in or near the Gymnasium of Delos are published in *B. C. H.* XXXVI, 1912, pp. 387-435 (pl.; fig.) by A. PLASSART. Eight date from the period of independence, the rest from the second Athenian rule. Among these latter is a list of fifty-six gymnasiarchs from 166/5 to 112/1 B.C. The office is annual but it appears that in one year there were two incumbents. Among the numerous dedications is one of Ptolemy X, Soter II, dated in 111/0 B.C., in which the king calls himself eldest son of Euergetes II, showing that he adopted this title before 108 B.C., the accepted date. *Ibid.* pp. 436-438, P. ROUSSEL dates the beginning of the list of gymnasiarchs in 167/6, doubts two officers in one year, and discusses the change made in 142/1, when the gymnasiarch was

chosen by the governor of the island and the frequenters of the Gymnasium, that is, the greater part of the free male population. *Ibid.* pp. 661-666 A. PLASSART and C. AVEZOU add five inscriptions, including one copied by Ciriaco of Ancona, to the inscriptions from the Gymnasium.

DELPHI.—New Inscriptions.—In *B. C. H.* XXXVIII, 1914, pp. 21-37 (5 figs.) G. BLUM publishes three inscriptions found at Delphi in 1912-1913. The first, a mere fragment, is part of a dedication by Attalus, and confirms the attribution to this king of the East Portico and its terrace. The second is apparently a fragment from the base bearing the statues of the Aetolian generals (Paus. X, 15, 2). The third is a long decree of the Amphictyonic Council in honor of Nicostratus of Larissa, who had been hieromnemon and ambassador to Rome. It is dated in 184-183 B.C. and throws light on the reconstitution of the Council in its traditional form and the relations of Athens and other Greek states to the Council and to Rome.

ORCHOMENOS (ARCADIA).—Excavations and Inscriptions.—In *B. C. H.* XXXVIII, 1914, pp. 71-88 (3 pls.; 16 figs.) G. BLUM and A. PLASSART describe briefly the results of a short excavation in 1913 at Orchomenos in Arcadia. In the upper city the terrace of the Agora was found to contain a long stoa on the north side and at a right angle to this on the east a rectangular hall, probably the Bouleuterion. On a lower terrace the temple and altar of Artemis Mesopolitis were cleared. Farther north the foundations of a rectangular structure were discovered, and beyond this the theatre was partially excavated. In the lower town the foundations of a Doric hexastyle peripteros, 100 feet long and dating from the end of the sixth century, were uncovered. The smaller objects found included an archaic Dionysiac relief, small bronzes, and terracottas. The excavations confirmed the statement of Pausanias (VIII, 13, 2) that in his day only the lower town was inhabited. *Ibid.* pp. 447-478 (12 figs.), the same authors begin the publication of the inscriptions discovered by them. These include the partially erased dedication on the base of a statue of Areus, king of Sparta, and a number of votes of proxeny, inscribed on small bronze tablets found for the most part in the "Bouleuterion." The publication of the inscriptions is continued *ibid.* XXXIX, 1915, pp. 53-134 (4 figs.). A stele found in the temple of Artemis Mesopolitis contains a minute description of the boundary between Orchomenos and Methydrium, but unfortunately none of the landmarks used can be identified. In view of the political situation the probable date of this agreement is 369 B.C. The dialect of the inscription is treated in great detail. The excavations also brought to light the upper part of the cippus containing the treaty between Orchomenos and the neighboring Euaemon (*I. G. V*, 2, 343). It shows that the document was continuous, commencing on the front of the stone, continuing on the left face, and concluding on the right. It may be dated about 360-350 B.C. The text of both new and old fragments is printed with a translation and commentary. Five fragmentary inscriptions are also published, and a complete list of the coins found or bought during the excavations. The article concludes with additional notes on the inscriptions published before and historical comments on the decrees of the Aetolian league found at Thermon and published by G. Soteriades in *Αρχ. Δελτ.* II, 1915, pp. 45-58.

PHARSALIA.—A Cave of the Nymphs and Chiron.—In *B. C. H.* XXXVI, 1912, pp. 668-669, N. I. GIANNOPOULOS announces the discovery on the moun-

tain Prasinovouni near Pharsalia of a cave which an inscription shows was dedicated to the Nymphs and Chiron. *Ibid.* XXXVIII, 1914, p. 479, A. S. ARVANITOPOULOS points out that he discovered the inscriptions on rocks near Pharsalia and published an account of them in *Πρακτικά*, 1910 and 1911.

PHOCIS.—New Inscriptions.—In *B. C. H.* XXXVII, 1913, pp. 443–446, C. AVEZOU and G. BLUM publish seven inscriptions from various sites in Phocis. All are short and fragmentary, except a stele from Hyampolis containing two decrees of proxeny in favor of Orchomenians.

TEGEA.—New Inscriptions.—In *B. C. H.* XXXVI, 1912, pp. 353–386 (12 figs.) K. A. ROMAÏOS publishes with a full commentary fourteen inscriptions found at various times near Tegea. They include an archaic fragment of the end of the sixth century, a bronze foot bearing the words Πολέας έποίησ, an architectural fragment with specifications about an ξφοδος, a long but badly damaged fragment of a *lex sacra*, lists of names, and honorary and votive inscriptions.

ITALY

CAVA DEI TERRENI.—A Hoard of Coins.—In 1907 a hoard of coins was found at Cava dei Terreni by a peasant. He disposed of some of them, and of these ninety Greek coins and forty-seven pieces of *aes grave* were published in *Not. Scav.* for 1908, pp. 84–85. The rest were seized by the carabinieri and, since the trial and condemnation of the finder, have been in the possession of the tribunal of Salerno. They are now transferred to the Naples museum and an account of them is given *ibid.* XV, 1919, pp. 268–269 by M. DELLA CORTE. They are seventy-five in number and, with the exception of three Roman coins, are from Campanian and Sicilian towns; twenty-six are from Paestum.

ESTE.—Miscellaneous Discoveries.—In the park of the Countess Albrizzi at Este numerous ruins of walls were found, with fragments of tiles, one of which was stamped with the name of C. Corelius Celer; also a tragic mask of Luna marble, and other fragments in marble. The most important find consisted of three handsome mosaic pavements of rooms the walls of which had entirely disappeared. One of these had in its centre a picture of a vase with handles, resembling a crater, above which was the inscription, *salvis amicis felix hic locus*. (ALFONSO ALFONSI, *Not. Scav.* XV, 1919, pp. 259–261.)

FONTANA ELICE.—Miscellaneous Antiquities.—In *Not. Scav.* XV, 1919, pp. 263–265, A. NEGRIOLI reports the discovery at Fontana Elice of five or six tombs of the Villanova period and seven of the Roman period, along with various antiquities: fibulae, and fragments of pottery and terracotta.

GRIZZANA.—An Etruscan Tomb.—In *Not. Scav.* XV, 1919, pp. 266–268, A. NEGRIOLI reports the discovery of an Etruscan tomb of the middle of the fifth century B.C., with vases.

IMPRUNETA.—An Early Etruscan Sanctuary.—In *Not. Scav.* XV, 1919, pp. 210–215, E. GALLI gives an account of the discovery, in the fall of 1917, of a very early Etruscan sanctuary at Impruneta, in the province of Firenze. In connection with the excavations there were found some Roman coins, fragments of pottery, and three small bronze figures, dimensions not given, called by the writer Apollo, Aphrodite, and Mars; also a bronze foot belonging to a larger statue.

MAGRE.—A Pre-Roman Sanctuary.—In *Not. Scav.* XV, 1919, pp. 169–207 (32 figs.), G. PELLEGRINI describes the discovery of a pre-Roman sanctuary at Magre (Vicenza), about a kilometer southwest of Schio, on an isolated hill. Attention was called to the site by the chance discovery of pieces of stag-horn inscribed with primitive characters, and part of a leaden bar. Systematic excavations were made in 1912, but a full report is now given for the first time. What appears to be the *favissa* of a temple was unearthed and numerous objects in bronze and stone were found. Most interesting of all are the stag-horns, of which thirteen are entire and eight others in a fragmentary condition, suggesting a cult of Artemis-Diana. The horns are inscribed in the Venetic alphabet with one or two noteworthy peculiarities of an archaic nature. The language, however, is not Venetic. It is a dialect strongly affected by Etruscan influences and was the language of a people who may have been the direct descendants of the Euganei.

MONTEVEGLIO.—Bronzes of the Villanova Period.—In *Not. Scav.* XV, 1919, pp. 262–263, A. NEGRIOLI reports the discovery at Montevoglio of bronze objects of the Villanova period, for the most part in fragments.

OSTIA.—An Important Inscription.—In *Not. Scav.* XV, 1919, pp. 223–245, G. CALZA tells of the discovery of an important inscription, found in fragments in a late wall near the temple of Vulcan. The inscription consists of two parts, of which the larger gives a list of the *quinquennales* of a *collegium*, and the smaller, the *curatores* of the same college. The inscription contains more than two hundred names, of which one hundred and ninety-eight can readily be deciphered or restored. They are arranged under consuls, beginning in the first list with Ti. Claudius Severus Proculus and C. Aufidius Victorinus of 200 A.D. The list is not complete but comprises the years 200, 210, 218, 228, and 237. The list of *curatores* is for the years 193, 194, and 201. The names of the consuls are in larger letters, as are also those of the regular *quinquennales*. Besides the latter there are under each year numerous *quinquennales d(ecreto) d(ecurionum)*, and it is conjectured by the writer that the latter office was a preliminary to the former. The list is not an *album*, but *fasti*, perhaps of the Severi Augustales.

REGGIO AEMILIA.—A Roman Tomb.—In *Not. Scav.* XV, 1919, pp. 261–262, A. NEGRIOLI reports the discovery near the railway station at Reggio Aemilia of a Roman tomb, containing a leaden ossuary, 15.5 cm. in height, with a cover of the same material 22.5 cm. in diameter, a lamp, three perfume bottles of glass, and a badly corroded bronze coin. Since the coin was inscribed "*tribunicia potestate xxxiix*" it must have been coined in the reign of Tiberius between June 27 of 36 A.D. and March 14 of 37. Coins, lamps, and another glass vase were found in the vicinity of the tomb.

ROME.—A Replica of the Maiden of Antium.—The Museo Nazionale delle Terme has recently acquired a small marble torso, 21 cm. high, which proves to be a replica of the Maiden of Antium. The head and the lower part of the body from above the knees are gone. It was found in 1903 between the Piazza Venezia and the Via Fornari. The figure when complete could not have been more than 40 cm. high, but as far as drapery and movement are concerned it is a faithful copy. A small serpent hanging from the right arm suggests that the statuette represented a Hygieia. No other replica of this statue is known. (C. ANTI, *Boll. Arte*, XIII, 1919, pp. 102–106; 5 figs.)

SARDINIA.—Recent Discoveries.—In *Not. Scav.* XV, 1919, pp. 285–331, A. TARAMELLI gives an account of exploration and research on the site of the ancient Cornus in Sardinia during May and June 1916, together with a history of the city. Twenty-four handsome glass vases of divers forms are described and illustrated. He also gives an account of the exploration of the remains of a Roman villa at Sisiddu, of a prehistoric necropolis at Fanne Massa with interesting tombs and numerous vases; further, of Punic tombs at the same place, in the region called Mussori, and at Furrighesus.

SOLFERINO.—Prehistoric Remains.—The collection of peat for fuel from beds which were formerly pools led to the discovery at Solferino of pile-work and other traces of prehistoric lake-dwellers. This part of the peat-beds will be protected and further excavations made. (G. PATRONI, *Not. Scav.* XV, 1919, pp. 257–259.)

SYRACUSE.—The Catacombs of S. Lucia.—In *Not. Scav.* XV, 1919, pp. 270–285, P. ORSI gives a detailed account of the exploration during 1916–1919 of the Catacombs of S. Lucia with a number of inscriptions and paintings.

VETULONIA.—A Roman Street.—In *Not. Scav.* XV, 1919, pp. 216–222, LUIGI PERNIER tells of the discovery of a Roman street and building at Costamurata, one of the three peaks of the elevation on which Vetulonia stands. The street, paved with polygonal blocks of limestone, ran from northeast to southwest and connected with a road of which traces had previously been found. Near by was a wall of large rectangular blocks of stone and other smaller walls belonging to a large room near which was the opening of an ancient well. There were also found fragments of pottery and terracotta, including part of a *puteal* of terracotta probably belonging to the well. The writer gives an illustration and description of a somewhat similar *puteal*, found at Vetulonia in 1898 and now in the museum at Florence.

VILLANOVA.—An Ancient Necropolis.—In *Not. Scav.* XV, 1919, pp. 253–257, PIETRO BAROCELLI gives an account of the discovery of an ancient necropolis at Villanova in October, 1919. Twenty-five tombs were found, none of which was larger than 1.40 by 0.50 m. They showed evidences of the so-called secondary burial, as did the neolithic tombs found at Montjovet in 1909. Their orientation is east and west.

VILLAZZANO.—A Villa with Sculptured Reliefs.—At Villazzano, on the road from Sorrento to Massalubrense, the remains of a large Roman villa have been found with a system of double stairways leading to an upper story. Its location suggests the villa of Pollio Felix (Statius, *Silv.* II, 2). In it a number of sculptures were found: a relief 1.80 by 1.30 m., representing, within a border of volutes of acanthus leaves and branches, a sacrifice to Diana. In the background are a pine, two quince trees, and an oak, typical of the country. Diana, facing to the left, is seated on a rock near the centre of the picture, with a lighted altar before her, and is receiving a sacrifice offered by three youths in tunics. The first of these is the priest, while the other two carry the materials for the sacrifice. Behind the goddess stand two older men, who are shown to be huntsmen by their costume and by the two lances which each holds in his hand. The figure of Diana is of the conventional type. She wears a short, high-girt tunic, with a crescent-shaped diadem on her head and richly ornamented shoes on her feet. A second relief, 1.75 by 1.05 m. and in a fragmentary condition, represents the triumph of Bacchus. The surviving portion shows a

satyr with a curved staff, who is leading the procession. He turns back to look at Silenus, who is riding upon a mule. In the foreground are seen the great heads of two panthers yoked together and at the bottom are the paws of the two beasts and traces of the car on which Bacchus rode. Another bit, restored by the writer from fourteen fragments, apparently belongs to the second relief. It shows the upper part of the figures of a satyr and a maenad. Near the fawn-skin across the satyr's breast is the left arm of a woman, and in the hand a small thyrsus. Other fragments of reliefs represent a group of satyrs approaching an altar, a river deity, and a handsome bell-shaped capital ornamented with acanthus leaves, behind which rise pointed, lance-shaped leaves. The borders and the portrait character of the heads suggest the Flavian period, while other characteristics point to the work of a local sculptor influenced by south Italian art. (A. LEVI, *Not. Scav.* XV, 1919, pp. 241-252.)

FRANCE

BETHISY-SAINT-MARTIN.—Roman Mile-stones.—In 1917 workmen widening the road between Bethisy-Saint-Martin (Oise) and the Gallo-Roman ruins of Champlieu discovered parts of four Roman mile-stones. There are thirty fragments in all, some of which still bear traces of red paint. Some letters were painted and not cut. These stones were grouped at the point where they were found at the end of the third century, and the erection of several at the same place was intended to show the allegiance of the town to the reigning emperor. The road was the Senlis-Soissons road. (E. ALBERTINI, *C. R. Acad. Insc.* 1919, pp. 46-55.)

RIVIÈRES.—A Latin Inscription.—In *C. R. Acad. Insc.* 1919, pp. 479-484, A. HÉRON DE VILLEFOSSE publishes a votive inscription in Latin recently discovered in the commune of Rivières (Charente). It reads *Julia Malla Malluronis fil(ia) numinibus Augustorum et deae Damonae Matubergnini ob memoriam Sulpiciae Silvanae filiae suae de suo posuit*. This inscription shows that the cult of Damona extended to western Gaul. There was probably a small sanctuary dedicated to local deities at the place where the inscription was found.

GREAT BRITAIN

LONDON.—A Fragment of the Frieze of the Parthenon.—The fragment from the frieze of the Parthenon found in 1901 in a rockery (*A. J. A.* VII, 1903, p. 390) has been presented to the British Museum by the owner, Mr. J. J. Dumville Botterell of Colne Park, Essex, and will soon be restored to its original position at the left upper corner of slab XXXV (Michaelis) of the north frieze. (Boston *Evening Transcript*, Aug. 27, 1919, from the *London Times*.)

New Greek Coins in the British Museum.—In *Num. Chron.* 1919, pp. 1-16 (2 pls.), G. F. HILL describes and illustrates some of the more important acquisitions of Greek coins made by the British Museum in 1917 and 1918. Among them is a new type of Metapontum, and a pale gold coin of northern Gaul, one of a hoard of ten discovered by some Canadian soldiers near Lens.

Antiquities from English Collections.—In March, 1919, Messrs. Spinck, of London, offered for sale a collection of antiquities from the Hope (Deepdene),

Peel, Kennedy, Clephan, Hilton Price, and other collections. A résumé of the illustrated catalogue, with notes and four drawings, is given by SALOMON REINACH in *R. Arch.* IX, 1919, pp. 198-201.

NORTHERN AFRICA

CYRENE.—**A Statue of Victory.**—About one kilometre southwest of Cyrene, on the site of the city of Balacrae, there have been found a number of inscriptions and votive sculptures which have been removed to the museum at Bengasi. Among them is a figure of Victory (Fig. 1) which has affinities with the Lemnian Athena of Phidias, but is probably an eclectic work carved in imperial Roman times. Although a piece of decorative sculpture it preserves something of the grandeur of the original which inspired it. (*Cron. B. A.* VI, 1919, p. 37; fig.)

KHAMISSA.—**A New Proconsul Africae.**—In *B. Soc. Ant. Fr.* 1917, pp. 190-192, C. PALU DE LESSERT publishes an inscription recently found at Khamissa with the name of a new *proconsul Africae*, Valerius Severus. He appears to be the same man who was *legatus* of Lycia and Pamphylia in 130 A.D. He held many important offices.

RABAT.—**Punico-Roman Graves.**—In *B. Soc. Ant. Fr.* 1918, pp. 156-159. R. CAGNAT points out that several Roman or Punico-Roman graves have recently been discovered at Rabat in the Touarga quarter. Some were incineration graves constructed thus: below a slab was an amphora, or two amphorae, one fitted into the other, then the burial urn covered with a cup. The inhumation graves were constructed of three slabs of stone. Very little funeral furniture was found in any of these graves. The writer also calls attention to a Latin inscription recently found at Porte des Zaër in which *GN* is used as an abbreviation in place of the common *CN*.

VOLUBILIS.—**New Mosaics.**—Two mosaics have recently been found at Volubilis in a house between the forum and the arch of Caracalla. One, somewhat damaged, is 2.16 m. by 2.60 m. and depicts several men engaged in fishing. One man is preparing to cast a net. Two others near him are so broken that it is impossible to say just what they were doing. In the centre is a seated man fishing with a line and hook. A fish is biting at the hook while five others swim about it. Below the feet of this fisherman is a fish with snakelike body. A few letters of an inscription are preserved. The second mosaic came from an adjoining room and measures 1.77 m. by 2.11 m. A nude man is represented



FIGURE 1.—VICTORY:
CYRENE.

seated on a bay horse facing the tail. The horse is walking towards the right with its head lowered. It has for harness a collar and the upper part of a bridle. The rider clings to the horse's collar with his left hand and with his right holds up a cup by the handle. Above the horse's head and behind the rider is a long streamer. The scene appears to represent a victor with his prize. The drawing in both mosaics is poor but the subjects are portrayed in a rather lively fashion. They are the first mosaics with figures to be found at Volubilis. (A. HÉRON DE VILLEFOSSE, *B. Soc. Ant. Fr.* 1918, pp. 161-164.)

The Statuette of a Mounted Youth.—In *C. R. Acad. Insc.* 1919, pp. 56-59 (fig.), T. REINACH calls attention to a bronze statuette of a youth found by Lieutenant L. Chatelain at Volubilis in November, 1918. It is 49 cm. high and represents a youth who was evidently mounted on horseback, but the horse is missing. The hands are placed as if holding the reins. The statuette dates from the first half of the fifth century B.C. and is almost perfectly preserved, though somewhat oxidized. The headband suggests a victor in a horse race at some important festival.

UNITED STATES

CLEVELAND.—**Classical Marbles.**—In *B. Cleve. Mus.* VI, 1919, pp. 43-45 (4 figs.), L. G. ELDRIDGE publishes three Greek sculptures in the Museum. The latest of the three is a head of Aphrodite from Capri. A vague expression is given to the head by the incomplete working of the details, and comparison with the "Petworth Head" proves that the inspiration for the sculpture comes from Praxiteles. A fragmentary head, probably of the youthful Heracles, is an illustration of the realistic tendency of Hellenistic art; while the third example, a part of a circular altar or fountainhead, is decorated with a typical archaistic relief. The figures preserved on the piece represent Athena and perhaps Hermes, walking to the left. The museum also has some good examples of Roman decorative sculpture. Garden furniture, consisting of table, basin, and four herms, is said to have come from a villa which belonged to a certain Rectina, possibly the wife of the poet Cassius Bassus, who perished in the eruption of Vesuvius in 79 A.D. There is also a little stone urn decorated with putti, garlands, etc. (*Ibid.* pp. 72-74; fig.)

A Roman Mosaic Pavement.—In *B. Cleve. Mus.* VI, 1919, pp. 103-104 (2 figs.), F. A. W. publishes a mosaic pavement, of the first century A.D., of Roman workmanship which has recently been acquired by the Cleveland Museum of Art. The design is conventional and bears little similarity to any others known. The pavement is supposed to have been excavated from the villa of Livia.

NEW YORK.—**The Treasure of Lahun.**—In 1914 W. M. Flinders Petrie discovered at Lahun the tomb of the princess Sat-hathor-iunut, who was probably the daughter of Senusert II of the twelfth dynasty. In a recess in the tomb was found all of the princess's jewelry in perfect condition, except in so far as it had been injured by time. All but a few of the pieces discovered were acquired by the Metropolitan Museum. The most important object was a diadem (Fig. 2) consisting of a broad band of highly burnished gold over an inch wide and large enough to pass around the bushy wig of the period. In front was an uraeus of open work inlaid with lapis lazuli and carnelian. Around

the band were fifteen rosettes riveted to the band, into which was fitted a double plume of sheet gold the stem of which slipped through a gold flower. At the back and sides of the crown were streamers of gold which hung from hinges attached to the rosettes. The whole was over a foot and a half high. This diadem was retained by the museum at Cairo. There were also found two richly inlaid pectorals of the same design, one bearing the cartouche of Senusert II and the other of Amenemhat III. The latter was retained in Cairo. Other objects were a massive collar of large double lion-heads of gold with smaller quadruple lion-heads between; another collar or girdle of large gold cowries with rhombic beads of gold, carnelian, and green feldspar; a necklace of beads of gold, lapis lazuli, and carnelian which probably held one of the pectorals; another necklace of amethyst beads with two gold lion-claw pendants; a pair of deep armlets formed of six bars of gold each bearing two columns of thirty-seven rows of beads which held apart as many rows of minute beads of carnelian and turquoise, and bearing also the name and titles of Amenemhat III in blue and white on a ground of carnelian; also a similar pair of bracelets. Two pairs of small recumbent lions of gold and two pairs of larger gold lions may have been attached to the arms as amulets. Various other amulets of gold with colored inlay were found. The other objects were a pair of copper knives, a pair of copper razors with gold handles, three obsidian cosmetic vases with gold mounting on the brim, base, and lid, a large silver mirror with handle of obsidian richly inlaid, and with a head of Hathor of gold (retained in Cairo); two inlaid gold scarabs (one retained in Cairo), another of lapis lazuli, and a fourth of the same material engraved with the cartouche of Amenemhat III; and finally eight alabaster jars for cosmetics and unguents. The jewelry had been placed in three caskets, two of which were of ivory veneer and one of wood. The first two can be restored. The tomb had been plundered, but this jewelry lay undisturbed in the recess where it had been placed at the time of burial. In a recess at the right were four very fine canopic jars in a limestone box. (A. M. LYTHGOE, *B. Metr. Mus.* December, Pt. II, 1919, pp. 1-28; 26 figs.)

Statues of Sekhmet.—The Metropolitan Museum has recently acquired seven colossal diorite statues of the lion-headed goddess Sekhmet. They came originally from the temple of Mut at Karnak where they were set up by Amen-hotep III, but were carried to England about 1830 and have recently been in the collection of Lord Amherst. In *B. Metr. Mus.* October, Pt. II, 1919, pp. 3-23 (22 figs.), A. M. LYTHGOE describes the many excavations in the temple of Mut and gives the history of the statues of Sekhmet since their excavation.

A Portrait of Herodotus.—The Metropolitan Museum has just discovered in its store-rooms an interesting life-size herm of Herodotus (Fig. 3). It was



FIGURE 2.—DIADEM OF SAT-HATHOR-IUNUT: CAIRO.

acquired twenty-eight years ago and is said to have been found shortly before that time at Benha in Lower Egypt. Bernouilli records five portrait heads of Herodotus, but this one is as good as, if not better than, any of them. It was probably carved in the second century A.D., but goes back to an original of the fourth century B.C. (E. R(OBINSON), *B. Metr. Mus.* XIV, 1919, pp. 171-173; 2 figs.)

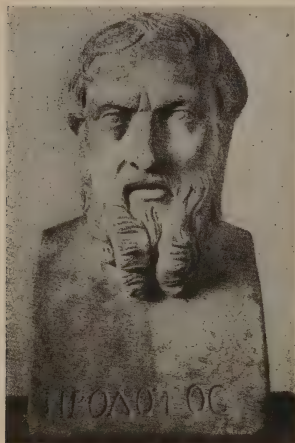


FIGURE 3.—BUST OF HERODOTUS: NEW YORK.

PHILADELPHIA.—A Tanagra Figurine.—In *Mus. J.* X, 1919, pp. 20-25 (fig.), S. B. L(UCE) publishes a Tanagra figurine, 24.5 cm. high, representing a woman wearing chiton and himation, leaning gracefully against a pillar and playing double flutes. The subject is unusual. The figure is well preserved and retains much of its original color.

A Black-Figured Scyphus.—In *Mus. J.* X, 1919, pp. 15-19 (2 figs.), Miss E. F. R(AMBO) publishes a black-figured scyphus recently acquired by the University Museum. Heracles is depicted on one side brandishing an axe over Nereus, who is running away, as are two Nereids. On the other side appear Athena, Iolaus, and Hermes followed by a ram. The decoration was intended as a single scene and is a good example of dramatic composition. The vase probably dates from the end of the black-figured period.

A Collection of Ancient Glass.—In *Mus. J.* X, 1919, pp. 156-165 (11 figs.), Miss E. F. R(AMBO) describes a collection of 180 pieces of ancient glass acquired by the University Museum in 1916. They date from the fifth century B.C. to the fourth century A.D., but most of them were made in the century before or after the Christian era. The most interesting piece is a large, iridescent covered jar of turquoise blue.

PROVIDENCE.—Pompeian Wall-Painting.—A fragment of a Pompeian wall-painting recently acquired by the Rhode Island School of Design is published by H. S. HINCKS in its *Bulletin*, VII, 1919, pp. 28-31 (fig.). The subject is a woman holding a lyre, apparently an allegorical representation of the muse of music. The work belongs to the third and best period of Pompeian wall-painting.

EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL, AND RENAISSANCE ART

EGYPT

CAIRO.—Tulunide Ornament.—In *Burl. Mag.* XXXV, 1919, pp. 180-188 (3 pls.; fig.), K. A. C. CRESWELL publishes reproductions of stucco ornaments on the soffits of arches which were recently cleared of their layers of coarse plaster in the mosque of Ahmed Ibn Tûlûn, Cairo. Historical data indicate

that the decorations of the mosque were influenced by the slightly earlier ornament at Sâmarrâ, and the analysis of the pieces here published is withheld until the large quantity of examples of stucco ornament from Sâmarrâ now on their way to the British Museum can be studied.

ITALY

AREZZO.—An Example of Ceramics by Andrea Sansovino.—Vasari tells of a terracotta copy by Andrea Contucci, called Sansovino, of an antique medal portrait of Galba. Milanese, followed by other commentators on the *Vite*, says that this terracotta is lost. In *Boll. Arte*, XIII, 1919, pp. 30–32 (pl.), A. DEL VITA publishes a majolica plaque in the Arezzo museum which he identifies as Sansovino's head of Galba. It is a strong, forceful piece of modelling. But the principal interest that attaches to the identification concerns the problem of the collaboration of sculptors and workers in ceramics at this time. Vasari says that a splendid terracotta representing the Assumption, made by Sansovino for the church of S. Agata in his native town, was glazed by "della Robbia." But that cannot be the case with the Galba portrait, for the varnish, colors, and technique are unlike those used in the della Robbia shop. A small amount of a peculiar and beautiful red color that is used on a clasp on Galba's mantle leads to the identification of a Tuscan ceramic atelier, that of Cafaggiolo, as the one in which Sansovino's terracotta plaque received its majolica glaze.

ASSISI.—Andrea da Assisi.—In *Rass. d'Arte*, XIX, 1919, pp. 33–36, U. GNOLI publishes documents relating to Andrea da Assisi, called the "Ingenious." These notices prove that Vasari was not so incorrect as has been supposed in his account of that artist, who was one of the best pupils of Perugino. But no help is given in the matter of attributing definite work to the "Ingenious" painter.

BOLOGNA.—Alessandro Menganti.—In *Boll. Arte*, XIII, 1919, pp. 107–108, C. RICCI calls attention to a Bolognese sculptor of the middle of the sixteenth century, Alessandro Menganti, who is overlooked by historians of art, e.g. he does not even appear in Cicognara's *Storia della Scultura*. This is due to no lack of extant works or of documentary evidence for still others, nor yet to the quality of the sculptor's work, the excellence of which is vouched for by the statue of Gregory XIII in Bologna. A dated portrait of the artist by Passarotti in the Perugia gallery puts the date of his birth in 1531.

FLORENCE.—Intarsia by Alberti.—In *L'Arte*, XXII, 1919, pp. 34–36 (4 figs.), A. VENTURI publishes some examples of inlaid marble by Alberti in San Sepolcro. They are of such a type as he describes in *De re aedificatoria*. Among them are the Rucellai and Medici stemmi. These exquisitely designed kaleidoscopic forms are among the most complete expressions of the dreams of the humanist architect.

LUCCA.—A Madonna by Luca della Robbia.—In *Burl. Mag.* XXXV, 1919, pp. 49–55 (2 pls.), G. DE NICOLA publishes a recently discovered Madonna by Luca della Robbia. It is in the church of San Michele at Lucca, and, in spite of some bad restorations, its authenticity is clearly proved by comparison with well-known works by Luca. It may be dated about 1440. Mention is here made also of an Annunciation in the little church of San Niccolò, Florence, which is one of the best works of Andrea della Robbia and has hitherto



FIGURE 4.—SCENES FROM THE LIFE OF ST. JOHN THE BAPTIST BY HENRI
MET DE BLES: MESSINA.

remained altogether unknown. Permission has not yet been obtained to reproduce this important terracotta relief.

MESSINA.—**New Documents.**—In *Rass. d'Arte*, XIX, 1919, pp. 75–80 (fig.), E. MAUCERI publishes nine documents which throw new light on the fifteenth century sculpture and painting of Messina. Some of the records concern Antonello and other known artists; some give us names that are new in the history of the art of Messina. Besides the documents, a marble tombstone (in the Museo Nazionale, Messina) of a young sculptor of Barcelona, Jains Sisa, is published here for the first time. It is of interest as offering a new confirmation of the penetration of Catalan art into that of Sicily.

Unpublished Paintings.—In *Boll. Arte*, XIII, 1919, pp. 77–79 (20 figs.), E. MAUCERI describes a number of unpublished paintings of the fourteenth and fifteenth centuries now in the Museo Nazionale of Messina. Some of these have only recently been cleaned so that they can really be seen. A *Pietà* has been classified under the name of Roger van der Weyden, and though this attribution is too ambitious, the work shows that master's inspiration. A follower of Memling is responsible for a triptych of the Madonna and Saints. Another Flemish triptych of the sixteenth century represents the Crucifixion and Christ under the Cross and the Resurrection. But the gem of the Flemish group is the panel attributed to Henri Met de Bles, representing St. John the Baptist and scenes from his life (Fig. 4). A number of paintings belong to the circle about Antonello: a holy bishop, an altar pala with the Madonna, and the great polyptych formerly in the church of S. Niccolò in Castoreale. The badly damaged central part of a triptych representing the Holy Family recalls the Ferrarese manner. And, finally, the panel of the Rosary of the Virgin, with the fifteen mysteries and the figure of King David, belongs to the first part of the seventeenth century.

MORRA.—**Luca Signorelli.**—In *L'Arte*, XXII, 1919, pp. 9–12 (4 figs.), A. VENTURI publishes four frescoes at Morra, which, though in a very bad and neglected condition, bespeak the greatness of the art of Signorelli. They are: the Last Supper and Christ on the Mount of Olives (two compositions in one compartment of the wall where a door has been cut through, mutilating both paintings), the Virgin of the Misericordia, and the Redeemer.

RAVENNA.—**The Aquarium of the Archbishop's Palace.**—The building recently uncovered at Ravenna during the restoration of the Archbishop's palace, and which is attracting so much attention from students of Ravenna, is identified by C. RICCI in *Boll. Arte*, XIII, 1919, pp. 33–36 (pl.; 2 figs.) as an aquarium. The building is constructed of brick. At its base are a series of arches with niches between and in the springing of the arches. Above this, in the semblance of a cornice, is a row of small rectangular openings that give access to a tunnel extending the full length of the building. Above the cornice is an arcade, not giving access to a room or corridor, but forming isolated niches. A second "cornice" of small apertures surmounts this arcade. The explanation of the construction seems to be as follows: In the niches in the arches below were large reservoirs for fish, tortoises, etc. The "cornice" openings were for nests of free birds of the air, pigeons, sparrows, and the like, and the upper arcade niches, when covered with a netting, served as cages for rare birds. Certain proof of this identification of the building is given by Agnellus in his *Liber Pontificalis*, where, in his life of Giovanni VIII, he mentions the

location of the *vivarium*; this location corresponds exactly with that of the present building. The date also can be approximated. It must be later than that of the Oratorio of S. Andrea (built between 494 and 519) against which it is built, and earlier than Giovanni VIII (archbishop of Ravenna from 777 to 784) in whose *Life* it is mentioned. It seems probable that it was built by Felix, archbishop of Ravenna from 707 to 723, who, returning from Constantinople, built a house called the house of Felix. The style accords with such a date.

ROME.—Correggio.—The old tradition of the complete independence of Correggio is shattered by O. HAGEN in *Z. Bild. K.* XXVIII, 1916-17, pp. 110-120 (12 figs.). In spite of the literary evidence—beginning with Vasari—that Correggio did not visit Rome, sufficient proofs are here set forth to make such a visit certain and thus account for the sharp change in style that appears between the first certain work of Correggio, the Dresden Madonna with St. Francis (1514-15), and his next absolutely indubitable production, the frescoes of the Camera of St. Paul in Parma. It has been contended that he does not show enough antique influence to have visited Rome. The Luna-Diana, the so-called Adonis, the Satyr, and other figures in the Camera of St. Paul refute this argument. Aside from their general classical character, their possible prototypes can be found in definite antique examples. But still more convincing as proof of the Roman visit is the very close parallel—amounting almost to copying—between many of Correggio's figures in the Camera of St. Paul and figures in the Vatican Loggia.

Piero della Francesca.—Again Vasari is confirmed in a passage that has long been doubted by critics. G. ZIPPEL in *Rass. d'Arte*, XIX, 1919, pp. 81-94 (7 figs.) brings together documents, tradition, and stylistic analysis which prove that Vasari was correct in assigning to Pietro dal Borgo San Sepolcro a considerable activity in Rome. In the perspective decoration in the "Greek" room of the old Vatican library, where rich marble columns, elaborate architraves, and other architectural forms are painted with extraordinarily illusionistic effect, we are to recognize the earliest work of Piero in Rome. The date of the document which connects Piero with the painting in a room for the pope—apparently this room—is 1459; so with this we are given a new date in the life and artistic career of the artist. Another important work, which, like that in the "Greek" room, has been assigned to Melozzo da Forlì, can be quite definitely assigned to Piero in its principal execution. It is the famous painting of Sixtus IV giving audience to Platina, now in the Vatican gallery, but formerly decorating a wall of the "Latin" room. The painting was begun by Piero in 1475, but in the following year, because of the loss of his eyesight, he had to turn over the completion of the work to his pupil, Melozzo. It appears from the name by which Piero is referred to in the Roman documents, Pietro di Benedetto dal Borgo, that he is the brother of Francesco di Benedetto dal Borgo, who figures very conspicuously in the documents as architect at the court of the pope. This may account for some of Piero's commissions there.

SASSOFERRATO.—Paolo Agabiti.—In *Boll. Arte*, XIII, 1919, pp. 91-94 (4 pls.), A. COLASANTI ascribes four previously unidentified paintings to Paolo Agabiti from Sassoferrato, who is already known by dated works. The earliest of these is the Madonna between Sts. Francis and Dominic in the church of S. Colombano in Bologna, there attributed to the fifteenth century Bolognese school. The Pietà belonging to Signora Mongiardini Rembadi may be placed

among the artist's works dating about 1511. The Madonna enthroned between Saints, a fresco recently uncovered in the church of S. Esuperanzio in Cingoli (Fig. 5), which has been ascribed by the Venturis to Antonio Solario, is, upon close examination, to be placed among Agabiti's works. The Entombment in the Office of the Register in Gubbio appears to belong to the last period of the artist's activity about 1531.

URBINO.—A *Stauroteca*.—A *stauroteca*, or reliquary of the cross, which was deposited a few years ago in the National Gallery of the Marches at

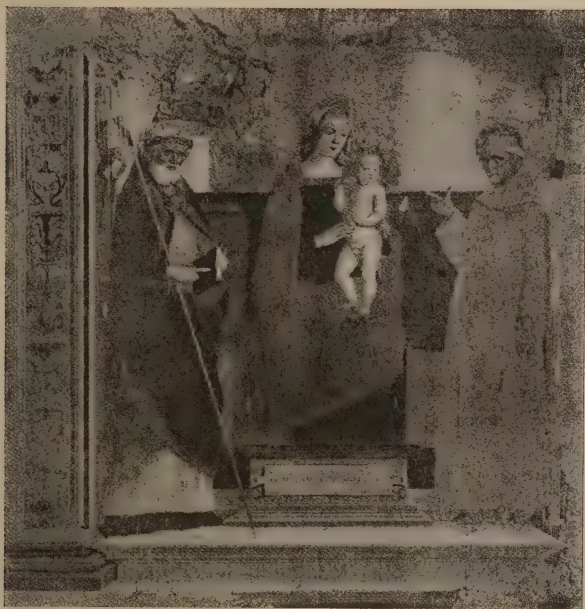


FIGURE 5.—MADONNA AND SAINTS BY AGABITI: CINGOLI.

Urbino is published by L. SERRA in *Burl. Mag.* XXXV, 1919, pp. 105-110 (pl.). The richly adorned figures of Constantine and Helena form the chief interest of its decoration. Though it offers no new iconographical features, it shows a careful restatement of previously employed forms, and in its gorgeous but refined magnificence it finds no equal, perhaps, in any similar work in metal. The advanced character of the decorative treatment would indicate as the probable period of its execution the end of the twelfth or the beginning of the thirteenth century.

PORTUGAL

LISBON.—A New Dürer.—In *Z. Bild. K.* XXVIII, 1916-17, pp. 131-132 (pl.), M. J. FRIEDLÄNDER publishes a hitherto unknown painting of the Holy Family by Dürer which shortly before the war appeared in Lisbon and now belongs to Dr. Paul von Schwabach of Berlin. The painting is signed, in the

manner of Dürer's great altar works, with the monogram and beneath that: ALBERTVS DVRER | NOREMBERGENSIS | FACIEBAT POST | VIRGINIS PARTVM | 1509.

FRANCE

PARIS.—A New French Primitive.—In *Gaz. B.-A.* XV, 1919, pp. 233-244 (pl.; 2 figs.), G. BRIÈRE writes on a little tondo of the Pietà, a French primitive recently presented to the Louvre by M. Maurice Fenaille. This exquisite example shows some relationship to the larger tondo in the Louvre representing an Adoration of the Trinity by the Virgin and Angels, to the Entombment, also in the Louvre, and to a tondo representing the Coronation of the Virgin in the museum of Berlin. But manuscripts offer still better parallels—the more satisfactory because manuscripts are more often dated or dateable and can be more definitely attributed as regards nationality and even personal identity of authorship. The miniatures executed by Jacquemart de Hesdin offer many points for comparison with the tondo of the Pietà and give the best reasons for affirming the French origin of the latter. It is, then, to the period of great artistic activity that came during the reign of Charles VI, and more definitely to the years between 1390 and 1410, that the new acquisition seems to belong; and it comes, apparently, from an atelier of the Ile-de-France.

SWITZERLAND

BERNE.—A Self-Portrait of Roger van der Weyden.—In 1913 (*Rep. f. K.* XXXVI, pp. 297 ff.) H. Brandt published a study under the title of 'Kunsthistorisches bei einem Mystiker des 15. Jahrs.' *Ibid.* XXXIX, 1916, pp. 15-30 (3 figs.), H. KAUFFMANN makes known the author and title of the treatise there discussed by Brandt and makes a correction in the interpretation of the Latin text which leads to the identification of a self-portrait of van der Weyden in the Trajan tapestry at Berne. The fifteenth century "Mystiker" is Cardinal Nicolaus of Cues (1401-64) and the place cited by Brandt is in his *De visione dei sive de icona liber*. In this, when correctly read, we learn that at the time of his visit to Brussels in 1451, the cardinal saw a portrait of Roger in a splendid painting in the town hall. The portrait is described as looking out from the picture with eyes that follow the spectator. The most probable conclusion is that the reference is to the much praised picture of Justice painted by Roger himself (it was in the town hall until the destruction of the latter in 1695) and that in this picture Roger included a portrait of himself. Fortunately, we have a very faithful copy of this painting made ten years after its completion, *i.e.*, at just about the time the cardinal saw the original. This copy is the Trajan tapestry at Berne, and in it there is a head answering the cardinal's description. Moreover, this head stands out from the rest of the picture in every way: the coloring is altogether different from that of the other faces, the movement and pose is contrary to the rest, and while the other faces are passive expressions of one type, this one is full of vivacity and is almost a caricature in the very individual rendering of features. Further, its location in the composition and the direction of the gaze are thoroughly characteristic of self-portraits that appear in similar compositions of the fifteenth century. It is the earliest portrait of Roger that we have and the only one for which there is contemporary testimony.

GERMANY

AUGSBURG.—**Wilhelm van den Broeck.**—Some alabaster reliefs in the Maximilian Museum in Augsburg afford the basis for a study of the sculptor, Wilhelm van den Broeck by T. MUCHALL-VIEBROOK in *Mh. f. Kunstw.* XII, 1919, pp. 57-65 (7 figs.). Hitherto that master has been merely a name; none of his works have been thought to be extant. Two of the reliefs in Augsburg, representing the Crucifixion, are signed and dated. The dates are 1560 and 1562, and the signature, "Guilielmus Paludanus," is the Latinized rendering of Wilhelm van den Broeck—other members of the family are familiar in literature. From documents we learn of the alabaster decoration of an altar for the Dominican church in Augsburg, consisting of reliefs of the Last Supper, the Crucifixion, and the Ascension, with parallel scenes from the Old Testament. Reliefs answering all these descriptions are in the Maximilian Museum, attributed to various masters; but their stylistic qualities mark them without doubt as the work of one master, the master of the signed Crucifixions. A further confirmation of their provenance (from the altar of the Dominican church in Augsburg) is given by two coats of arms on the 1560 Crucifixion. These are the arms of prominent Augsburg families. In Wilhelm van den Broeck's artistic qualities, which can be very satisfactorily studied in these examples, Italianized and pictorial features predominate.

DANZIG.—**Master Francke.**—Paintings in Danzig published by H. EHRENBURG in *Mh. f. Kunstw.* X, 1917, pp. 26-31 (3 pls.) aid in the characterization of the Hamburg painter, Master Francke. Scenes from the life of St. Dorothea on an altar-piece from the Danzig church of Mary, and now in the city art museum, are, though somewhat inferior in quality, too closely related to the Hamburg Thomas-altar and the Nykyrko-altar now in the museum of Helsingfors, both by Master Francke, to have been merely influenced by him. They seem rather to be his own work and earlier than either of the altar-pieces just referred to. There are other altar panels in this church which, if not by Master Francke himself, are at least so close to him in style that they are useful in making his manner more clear. They are a representation of the Trinity, which is very similar in arrangement to the Leipzig and Hamburg compositions of the Man of Sorrows, and the Ecce Homo and Entombment. The architecture in the Ecce Homo panel is strongly Italianized; the inspiration probably came by way of Prague.

DARMSTADT.—**The Marriage-Bed on the Alexander Casket.**—In *Mh. f. Kunstw.* XII, 1919, pp. 66-67 (fig.), S. POGLAYEN-NEUWALL discusses the puzzling nuptial scene on the syncretic casket with scenes from the Romance of Alexander at Darmstadt. This scene has been connected with such prototypes as the marriage of Zeus and Hera on the Selinus metope and Hercules with a Nymph on various ancient gems, etc. But in all these instances the bed is lacking. The real prototype is rather to be sought in vase painting where banquet scenes take a form analogous to that of the Darmstadt casket. Poseidon and Amphitrite on a cylix from Vulci in the British Museum offer an exact parallel.

DRESDEN.—**The Cavazzola Picture.**—In *Mh. f. Kunstw.* IX, 1916, pp. 62-63 (pl.), J. KOHLER identifies the subject of the incomparable portrait by Cavazzola in the Dresden gallery. It is Giovanni Megli painted at about the age of 44 shortly before the artist died in 1522. The importance of Giovanni

Megli in contemporary history proves the fitness of the interpretation which Cavazzola has perpetuated. The portrait unites the realism of a Velasquez with the metaphysical penetration of a Piombo.

LUBECK.—Hans Kemmer.—A pupil of Cranach's school is clearly characterized in *Mh. f. Kunstw.* X, 1917, pp. 1-7 (4 pls.) by K. SCHAEFER, who attributes a number of paintings with a high degree of certainty to Hans Kemmer of Lubeck. The paintings of the St. Olaf diptych in the church of St. Mary at Lubeck were attributed to Grünewald, Lucas Cranach, and Hans Cranach until in 1901 the contract from the Lubeck archives was published, giving in detail the agreement between the *Kaufmannskompagnie der Bergenfahrer* at Lubeck and the painter Johann Kemmer. This document places the date of the work in 1522. The fact that a number of paintings so close in style to this work as to warrant the assumption that they are by the same artist are signed with the monogram H. K. makes their ascription to Johann or Hans Kemmer practically certain. The first of these, representing Christ and the adulteress, in a private collection in Lubeck, is dated 1530. A closer parallel could hardly be found than that between the woman here and a female figure in the Descent from the Cross on the St. Olaf altar. The monogram and the belief that this was a Leipzig production led Friedländer to attribute the work to Hans Krell, but the coats of arms prove that it was commissioned by a Lubeck family. A second work with Hans Kemmer's monogram has the date 1534. It is a small half-length portrait of a woman in the Leipzig museum and has also been attributed by Friedländer and by Bode to Hans Krell. In the provincial museum at Hanover is a *Salvator Mundi* with a pair of donors; the woman here is in feature and especially in costume a sister of the one represented in the preceding portrait. It was painted three years later. A portrait of a man in the hands of a dealer in Berlin was painted in the same year as was the portrait of a woman. The fifth signed work is a so-called marriage plate with a painting of the Trinity, in the Schwerin museum. The date is 1540, and the coats of arms show that we are again dealing with a work of Lubeck. Another less important and much restored work with the artist's monogram represents Christ and a donor and is in the museum for art and cultural history in Lubeck. Its principal interest is that it proves that the artist was still working in Lubeck as late as 1544. Hans Kemmer must have been born about 1495—his birthplace is not known. About 1515 he began studying under Cranach and by 1522 was at work in Lubeck.

WEIMER.—A New Self-Portrait of Dürer.—In *Rep. f. K.* XXXIX, 1916, pp. 10-15 (5 figs.), F. RON identifies a drawing in the Weimar museum as a self-portrait of Dürer. It is a careful representation of the nude figure shown to the knees. The example is of special importance because, unlike his self-portraits in Madrid, Munich, and Prague (the last is in the Rosary picture), where the artist shows himself with long curling locks hiding all but the front of his face, the hair is here bound up in a net and the shape of the skull is clearly drawn. The fact that the figure is not intended for any historical or ideal composition is another reason for our having a more realistic presentation here than in the others. The foreign characteristics of the head recall Dürer's own account of his Hungarian paternal descent. The age of the subject and the style of the drawing date the work about 1499.

HUNGARY

BUDAPEST.—Leonardo's Equestrian Studies.—In an extensive investigation of Leonardo's development of the problem of representing a man on horseback S. MELLER (*Jb. Preuss. Kunsts.* XXXVII, 1916, pp. 213–250; 2 pls.; 15 figs.) distinguishes between the drawings which served as studies for the equestrian statue of Sforza and those for the Trivulzio monument. The most interesting result of the research is the demonstration that there are extant both models and copies of models made by Leonardo for these monuments. The four different compositions of horse and rider in the Milanese engraving have been considered copies of Leonardo's drawings, but that they are copies of models is shown by the rectangular pedestals on which the groups are placed and by the fact that in each case there is a support under one of the upraised forefeet of the horse. In two of the groups a vanquished warrior serves that purpose; but in the other two a tree stump is used. An almost exact parallel for the vanquished warrior in one of these compositions is found in a little bronze figure in the collection of Prince Trivulzio, Milan. Whether this is a model from Leonardo's own hand or a copy after such a one cannot be said; that it is not a copy of the engraving is clear from the Leonardesque face, which cannot be seen in the engraving. All these models, represented by the engravings and the bronze figure, are of studies for the Sforza monument. Copies of other variations of the group are to be seen in a silver-point drawing in Windsor and in a pen drawing in the Royal Graphic Collection in Munich. Both of these are clearly reproductions of small models made by Leonardo for the Sforza monument. Leonardo has left few drawings for the Trivulzio monument, but this scarcity is compensated for by a wonderful little bronze model for the group lately acquired by the Budapest museum. This equestrian study is undoubtedly the work of Leonardo (whether he was responsible for the actual casting of the bronze is an indifferent matter) and shows the farthest stage in the development of his investigation—continued through a quarter of a century—of the problem of the plastic representation of horse and rider.

POLAND

CRACOW.—The Czartoryski Raphael.—The much-disputed portrait in the Czartoryski collection at Cracow, which has been assigned now to Timoteo Viti, now to Sebastiano del Piombo, now to Guercino, and occasionally to Raphael is given a new interpretation by O. FISCHER in *Jb. Preuss. Kunsts.* XXXVII, 1916, pp. 251–261 (pl.; 17 figs.). The subject has been as much disputed as the authorship. Attempts have been made to show that it represents this or that youth of royal blood, and it has had a wide acceptance as a portrait of Raphael. But it is now shown that the subject is not a young man at all but a woman! Aside from the fact that the face, hands, and rounded body are those of a woman, the costume is not unusual for a female figure, and the long hair was not worn by men at all in the period to which the portrait belongs. Comparison with the types of women represented by Raphael and his atelier indicates that the beautiful Czartoryski portrait finds its place among those that apparently had as their model the baker's daughter of Trastevere, whom we know as La Fornarina. The work is that of Raphael himself.

SWEDEN

STOCKHOLM.—Lambert Rycx.—In *Burl. Mag.* XXXV, 1919, pp. 56–61 (pl.), T. BORENIUS publishes a Virgin and Child owned by M. C. Frisk of Stockholm, which adds to the small amount of information regarding Flemish painters in the art life of Sweden in the sixteenth century. The painting is signed by Lambert Rycx Aertsz or Aertszoon of Antwerp, who spent some years in Sweden, and who has until now been a mere name in art history.

GREAT BRITAIN

LONDON.—A Dürer Drawing.—A little known drawing by Dürer, portraying Christ as the Man of Sorrows, which has just been acquired by the British Museum is published by C. DODGSON in *Burl. Mag.* XXXV, 1919, pp. 61–62 (pl.). It is in India ink, and the character of the half destroyed monogram, as well as the appearance of the drawing itself, dates the work about 1501.

A Mosaic Panel.—In *Burl. Mag.* XXXV, 1919, p. 75 (pl.) there is published an ancient mosaic panel recently presented to the National Gallery. The subject is a summary of the apsidal decoration of the Upper Church of S. Clemente at Rome.


Bono da Ferrara.—Two panels in the collection of Mr. Henry Harris, representing St. John the Baptist and St. Prosdochimus, are added by T. BORENIUS in *Burl. Mag.* XXXV, 1919, p. 179 (pl.) to the meagre list of Paduan quattrocento paintings that have come down to us. Stylistic characteristics further mark the panels as the work of a definite follower of Squarcione, Bono da Ferrara. Two of his authenticated works, besides others reasonably attributed to him, are extant.

A Greek Icon.—An icon illustrating a Greek hymn, owned by Mr. N. Gianacopulo, is published by G. EUMORFOPOULOS in *Burl. Mag.* XXXV, 1919, pp. 102–105 (pl.). The type is that which has the Virgin and Child on a large scale in the middle. It is a work of the sixteenth century and is signed by John Baryboze the Chiote.


A Silver Reliquary Head.—In *Burl. Mag.* XXXV, 1919, p. 129 (2 pls.), M. CONWAY publishes a silver reliquary head lately acquired by Mr. Henry Harris. It is a rare monument, apparently Italian of the twelfth century.

The Costessey Collection of Glass.—In *Burl. Mag.* XXXV, 1919, pp. 26–31 (2 pls.) A. VALLANCE publishes some of the pieces of a collection of glass recently acquired by Mr. Grosvenor Thomas. The most interesting portion of the collection consists of a set of panels from a Jesse window, probably French, of about 1220 to 1240, too early for the motive to have been fully developed. A panel of the fifteenth century representing the Madonna is a superb example of French work. Other important pieces are a Dutch or Flemish Judgment of Solomon and Battle of Rephidim, a German series of scenes from the Passion of Our Lord, and two English armorial shields.

UNITED STATES

BOSTON.—Flemish Engravings.—Two engravings by Master  recently acquired by the Museum of Fine Arts are published by F. C. in *B. Mus. F. A.* XVII, 1919, pp. 50–52 (2 figs.). They represent St. Bartholomew and St. John. Special interest attaches to this master because of his

relationship to Master E. S. and to Israhel van Meckenem. He served his apprenticeship under the former, and the latter, in turn, worked in his shop.

Brussels Tapestries.—In *B. Mus. F. A.* XVII, 1919, pp. 52–53 (2 figs.), S. G. F. T. describes two Brussels tapestries which had long been lent to the Museum and have now been acquired permanently. They were made about the middle of the sixteenth century by a master-weaver who signs himself . They represent the Battle of Ticinus and Scipio upbraiding Massinissa.

CHICAGO.—**Foliated Initials by Don Simone of Siena.**—In *Art in America*, VIII, 1919, pp. 21–27 (pl.) E. H. WILKINS describes the decorated initials of a beautiful manuscript of the *Genealogia deorum* of Boccaccio recently presented to the University of Chicago. The manuscript dates about 1380–1404 and was made for a friend of the author. It is probable that it is the portrait of Boccaccio himself that appears in one of the initials. Similarity to manuscripts known to be the work of Don Simone da Siena, and to others done under his direction or influence, clearly establishes the authorship of the Chicago manuscript.

CLEVELAND.—**Gothic Glass and Sculpture.**—Among the objects of Gothic art recently exhibited in the Cleveland Museum of Art were windows lately purchased by the Museum and a sculptured group of St. John blessing a kneeling knight lent by Messrs. Parish-Watson and Co. This group is clearly Burgundian in provenance and from an atelier still working in the manner of Claus Sluter. The knight's armor dates it about 1450–1460. Two of the windows are from the early thirteenth century and may from their style be judged as derived from the same workshop as the windows in the cathedral of Le Mans—both influenced by Chartres. The third window is a little later, dating about 1250. (*W. M. M., B. Cleve. Mus.* VI, 1919, pp. 67–70; 4 figs.)

DETROIT.—**Bartolomeo Ramenghi.**—In the *Bulletin of the Detroit Museum*, XIII, 1919, pp. 58–59 (fig.), C. H. B. publishes a Madonna Enthroned between Saints by Bartolomeo Ramenghi, called Bagnacavallo, owned by the museum and but recently put on exhibition. The painting is signed and dated 1529.

NEW YORK.—**Breydenbach's Itinerary.**—A perfect copy of the first edition of Breydenbach's *Itinerary of a Voyage by Sea to the Holy Sepulchre*, dated at Mayence, 1486 (o. s.) and printed by Erhard Reuwich, has recently been acquired by the Metropolitan Museum. Aside from the text, which is extremely interesting, there are large views of Venice, Rhodes, Jerusalem, etc. But from a purely artistic point of view the most important and interesting cuts in the book are the frontispiece and the printer's mark. (*W. M. I., Jr., B. Metr. Mus.* XIV, 1919, pp. 215–221; 3 figs.)

A Statue of the School of Troyes.—A limestone polychrome statue of a pilgrim saint, probably St. Savina, of the school of Troyes is published by J. BRECK in *Art in America*, VIII, 1919, pp. 3–6 (pl.). The statue is in the Metropolitan Museum and apparently is assignable to the second decade of the sixteenth century, when, in the revival of sculpture at Troyes, the Gothic tradition still prevailed against Italianism.

A Twelfth Century Bronze.—A bronze base of an altar cross or reliquary of the twelfth century, which is among the recent accessions of the Metropolitan Museum, is published by G. E. P., Jr., in *B. Metr. Mus.* XIV, 1919, pp. 222–

225 (fig.). Its principal characteristics relate it to the work of Godefroid de Claire and warrant its attribution to his school.

Early Christian Ivories.—Two fragments of ivory in the Morgan collection of the Metropolitan Museum carved with the same composition, the Ascension, are discussed by J. B. in *B. Metr. Mus.* XIV, 1919, pp. 242–244 (fig.). The iconography is Palestinian (cf. E. T. Dewald, *A. J. A.* XIX, 1915, pp. 277 ff.) and the execution so closely related to Coptic work that it is reasonable to suppose that the ivories were carved in Palestine by Coptic craftsmen in the late sixth or early seventh century.

Holbein's Dance of Death.—A complete set of proofs of the woodcuts of Holbein's Dance of Death, which has recently become the property of the Metropolitan Museum is discussed by W. M. I., Jr., in *B. Metr. Mus.* XIV, 1919, pp. 231–235 (4 figs.). The set comes from an English private collection and is made up of examples from various editions.

Gilded and Engraved Armor.—In *B. Metr. Mus.* XIV, 1919, pp. 210–215 (4 figs.), B. DEAN publishes a suit of armor for man and horse which has recently been acquired for the museum. It is almost complete in every detail and beautifully preserved. The date 1527 occurs three times in the ornamentation and the work appears to be French. There is good evidence for the belief that the armor was made originally for the Sieur Jacques Gourdon de Genouilhac (1466–1546), who was a distinguished courtier and warrior at the court of Louis XII and Francis I. The armor has up to the present been preserved in his family and assigned to him.

A Crucifixion by Pesellino.—The principal interest in the small Crucifixion attributed to Pesellino, which was recently bought by the Metropolitan Museum, lies in the landscape background. The part of the landscape in which the figures are immediately placed follows the old formal tradition, but beyond this is seen real landscape, treated in quite modern manner. The influence of Fra Angelico is evident in this innovation. (*B. B.*, *B. Metr. Mus.* XIV, 1919, pp. 155–156; pl.)

Drawings from the Pembroke Collection.—The drawings among the late acquisitions of the Metropolitan Museum to which attention is called by B. B. in *B. Metr. Mus.* XIV, 1919, pp. 136–140 (4 figs.) come principally from the sale of the Pembroke collection in 1917. The earliest of these, probably done by a Siennese in the middle of the fourteenth century, is a copy of Giotto's mosaic known as La Navicella made for old St. Peter's in Rome. A drawing of a horse with anatomical measurements is now ascribed to Antonio Pollajuolo or his school. The profile of a woman, considered by Berenson as one of Leonardo's studies for the Virgin and St. Anne, and three drawings by Correggio are also from the Pembroke collection. A sketch of St. Catherine by Dürer comes from the Poynter collection.

ST. LOUIS.—**Italian Renaissance Cassoni.**—Two carved walnut cassoni that have recently been acquired by the St. Louis City Art Museum are published in its *Bulletin*, IV, 1919, pp. 2–5 (2 figs.). The more important one is of the late Renaissance period and of Roman provenance, as is indicated by the influence of classical discoveries of that time in the shape of the chest and in the technique and subject matter—the latter is from classical mythology. The chest takes the form of a sarcophagus. The other cassone is Venetian, also of the sixteenth century, but still retaining the rectangular form of the earlier period.

French Renaissance Wood-carving.—An interesting French carved wooden door which may probably be dated in the reign of Francis I has been obtained by the St. Louis City Art Museum. The work shows the blending of the Gothic and the Renaissance at just the period when the French craftsmen, under the influence of skilled workers from Italy, were rapidly forsaking the Gothic style for that of the Renaissance. The portrait-like heads on the door suggest that Ghiberti's gates of the Baptistry at Florence were not unknown to the carvers of this specimen (*Bulletin of the St. Louis City Art Museum*, IV, 1919, pp. 5-7; fig.). A French credence, formerly in the collection of M. Chabrières Arlès of Lyons, and now in the museum, belongs to about the same period as the door just referred to and shows the early manifestations of the inventive fancy of French wood-carvers, which was to come to rich fruition in succeeding centuries (*Ibid.* pp. 8-9; fig.). An important cabinet of the style of Jacques Androuet (ca. 1510-1580), called Du Cerceau, was formerly in the collection of Mr. T. Foster Shattock and on loan at the South Kensington Museum (*Ibid.* pp. 9-10; fig.). Finally, a carved walnut chair in the museum is of the period of Henry II and seems to have been closely associated with him, for the monogram which appears on it is probably that of the king and his mistress, Diane de Poitiers (*Ibid.* pp. 10-12; fig.).

AMERICAN ARCHAEOLOGY

GENERAL AND MISCELLANEOUS

NEW MEXICO.—Excavations on the Animas River.—In *Anthropological Papers* of the American Museum of Natural History (XXVI, pt. 1, New York, 1919), EARL H. MORRIS describes his excavations in the Aztec ruin on the Animas River, in San Juan County, New Mexico, during which excavations sixty-nine secular chambers and eight circular kivas were uncovered. A full account of the different finds is given. The writer says that architecturally the ruin is to be classed with Pueblo Bonito. The pottery resembles closely that prevailing at Mesa Verde, and indicates two periods of occupation.

NEW YORK.—Rock Stations.—In *Am. Anth.* XXI, 1919, pp. 139-152, MAX SCHRABISH describes his explorations in 129 rock stations in New York and New Jersey which show evidence of human occupation. Many of these were found along the streams and trade routes but more occur in the mountains. The sites contain animal bones, artifacts, and pottery fragments with typical Algonquin decorations. The writer discusses several geological features which determined which rock stations might be desirable for human habitation.

OHIO.—The Ulrich Group of Mounds.—In the *Ohio Archaeological and Historical Quarterly*, 1919, pp. 162-175 (6 figs.), T. B. MILLS describes the Ulrich group of mounds in Montgomery County. He examined four mounds. These contained a large number of flint implements, marine shell beads, copper objects, etc.

ABBREVIATIONS

Abh.: Abhandlungen. *Allg. Ztg.*: Münchener Allgemeine Zeitung. *Alt. Or.*: Der alte Orient. *Am. Anthr.*: American Anthropologist. *Am. Archit.*: American Architect. *A.J.A.*: American Journal of Archaeology. *A.J. Num.*: American Journal of Numismatics. *A.J. Sem. Lang.*: American Journal of Semitic Languages and Literature. *Ami d. Mon.*: Ami des Monuments. *Ant. Denk.*: Antike Denkmäler. *Ann. Arch. Anth.*: Annals of Archaeology and Anthropology. *Ann. Scuol. It. At.*: Annuario della r. Scuola Archeologica di Atene e delle Missioni Italiane in Oriente. *Arch. Anz.*: Archäologischer Anzeiger. *Ἀρχ. Δελτ.*: Ἀρχαιολογικὸν Δελτίον. *Ἀρχ. Ἐφ.*: Ἀρχαιολογικὴ Ἐφημερίς. *Arch. Rec.*: Architectural Record. *Arch. Rel.*: Archiv für Religionswissenschaft. *Arch. Miss.*: Archives de Missions Scientifiques et Littéraires. *Arch. Stor. Art.*: Archivio Storico dell' Arte. *Athen.*: Athenaeum (of London). *Ath. Mitt.*: Mitteilungen d. k. d. Archaeol. Instituts, Athen. Abt.

Beitr. Assyrl.: Beiträge zur Assyriologie. *Ber. Kunsts.*: Amtliche Berichte aus den Königlichen Kunstsammlungen. *Berl. Akad.*: Preussische Akademie der Wissenschaften zu Berlin. *Berl. Phil. W.*: Berliner Philologische Wochenschrift. *Bibl. Stud.*: Biblische Studien. *Bibl. World*: The Biblical World. *B. Ac. Hist.*: Boletín de la real Academia de la Historia. *B. Soc. Esp.*: Boletín de la Sociedad Española de Excursiones. *Boll. Arte*: Bollettino d'Arte. *Boll. Num.*: Bollettino Italiano di Numismatica. *Bonn. Jb.*: Bonner Jahrbücher: Jahrbücher des Vereins von Altertumsfreunden im Rheinlande. *B.S.A.*: Annual of the British School at Athens. *B.S.R.*: Papers of the British School at Rome. *B. Arch. C. T.*: Bulletin Archéologique du Comité des Travaux hist. et scient. *B. Arch. M.*: Bulletin Archéol. du Ministère. *B.C.H.*: Bulletin de Correspondance Hellénique. *B. Cleve. Mus.*: Bulletin of the Cleveland Museum of Art. *B. Inst. Ég.*: Bulletin de l'Institut Égyptien (Cairo). *B. Metr. Mus.*: Bulletin of the Metropolitan Museum of Art, New York. *B. Mon.*: Bulletin Monumental. *B. Mus. Brux.*: Bulletin des Musées Royaux des arts décoratifs et industriels à Bruxelles. *B. Mus. F. A.*: Museum of Fine Arts Bulletin, Boston. *B. Num.*: Bulletin de Numismatique. *B. R. I. Des.*: Bulletin of the Rhode Island School of Design. *B. Soc. Anth.*: Bulletin de la Société d'Anthropologie de Paris. *B. Com. Rom.*: Bollettino d. Commissione Archeologica Comunale di Roma. *B. Arch. Crist.*: Bollettino di Archeologia Cristiana. *B. Pal. It.*: Bollettino di Paletnologia Italiana. *Burl. Mag.*: Burlington Magazine. *B. Soc. Ant. Fr.*: Bulletin de la Société des Antiquaires de France. *Byz. Z.*: Byzantinische Zeitschrift.

Chron. Arts: Chronique des Arts. *Cl. Phil.*: Classical Philology. *Cl. R.*: Classical Review. *C. R. Acad. Insc.*: Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres. *C.I.A.*: Corpus Inscriptionum Atticarum. *C.I.G.*: Corpus Inscriptionum Graecarum. *C.I.L.*: Corpus Inscriptionum Latinarum. *C.I.S.*: Corpus Inscriptionum Semiticarum. *Cron. B. A.*: Cronaca delle Belle Arti.

Eph. Ep.: Ephemeris Epigraphica. *Eph. Sem. Ep.*: Ephemeris für Semitische Epigraphik. *Exp. Times*: The Expository Times.

Gaz. B.-A.: Gazette des Beaux-Arts. *G.D.I.*: Sammlung der griechischen Dialekt-Inscripfen.

I.G.: Inscriptiones Graecae (for contents and numbering of volumes, cf. *A.J.A.* IX, 1905, pp. 96-97). *I.G.A.*: Inscriptiones Graecae Antiquissimae, ed. Roehl. *I.G. Arg.*: Inscriptiones Graecae Argolidis. *I.G. Ins.*: Inscriptiones Graecarum Insularum. *I.G. Sept.*: Inscriptiones Graeciae Septentrionalis. *I.G. Sic. It.*: Inscriptiones Graecae Siciliae et Italiae.

Jb. Arch. I.: Jahrbuch d. k. d. Archäol. Instituts. *Jb. Kl. Alt.*: Neue Jahrbücher für das klassische Altertum, Geschichte und deutsche Litteratur und für Pädagogik. *Jb. Kunsth. Samm.*: Jahrbuch der Kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses. *Jb. Phil. Päd.*: Neue Jahrbücher für Philologie und Pädagogik (Fleckeisen's Jahrbücher). *Jb. Preuss. Kunsts.*: Jahrbuch d. k. Preuss. Kunstsammlungen. *Jh. Oest. Arch. I.*: Jahreshefte des oesterreichischen Archäologischen Instituts. *J. Asiat.*: Journal Asiatique. *J.A.O.S.*: Journal of the American Oriental Society. *J. B. Archaeol.*: Journal of the British Archaeological Association. *J. B. Archit.*: Journal of the Royal Institute of British Architects. *J. Bibl. Lit.*: Journal of Biblical Literature. *J. E. A.*: Journal of Egyptian Archaeology. *J. H. S.*:

Journal of Hellenic Studies. *J. Int. Arch. Num.*: Διέθνῃς Ἐφημερίς τῆς νομισματικῆς ἀρχαιολογίας, Journal international d'archéologie numismatique (Athens). *J.R.S.*: Journal of Roman Studies.

Kb. Gesamtver.: Korrespondenzblatt des Gesamtvereins der deutschen Geschichts- und Altertumsvereine. *Kunstchr.*: Kunstchronik.

Mb. Num. Ges. Wien: Monatsblatt der Numismatischen Gesellschaft in Wien. *Mh. f. Kunstw.*: Monatshefte für Kunstwissenschaft. *Mél. Arch. Hist.*: Mélanges d'Archéologie et d'Histoire (of French School in Rome). *Mél. Fac. Or.*: Mélanges de la Faculté Orientale, Beirut. *M. Inst. Gen.*: Mémoires de l'Institut Genevois. *M. Soc. Ant. Fr.*: Mémoires de la Société des Antiquaires de France. *M. Acc. Modena*: Memorie della Regia Accademia di scienze, lettere ed arti in Modena. *Mitt. Anth. Ges.*: Mitteilungen der anthropologischen Gesellschaft in Wien. *Mitt. C.-Comm.*: Mitteilungen der königlich-kaiserlichen Central-Commission für Erforschung und Erhaltung der Kunst- und historischen Denkmale. *Mitt. Or. Ges.*: Mitteilungen der deutschen Orient-Gesellschaft. *Mitt. Pal. V.*: Mitteilungen und Nachrichten des deutschen Palästina Vereins. *Mitt. Nassau*: Mitteilungen des Vereins für nassauische Altertumskunde und Geschichtsforschung. *Mitt. Vorderas. Ges.*: Mitteilungen der vorderasiatischen Gesellschaft. *Mon. Ant.*: Monumenti Antichi (of Accad. d. Lincei). *Mon. Piot*: Monuments et Mémoires pub. par l'Acad. des Inscriptions, etc. (Fondation Piot.) *Mün. Akad.*: Königlich Bayerische Akademie der Wissenschaften, München. *Mün. Jb. Bild. K.*: Münchner Jahrbuch der bildenden Kunst. *Mus. J.*: The Museum Journal of the University of Pennsylvania.

N. D. Alt.: Nachrichten über deutsche Altertumskunde. *Not. Scav.*: Notizie degli Scavi di Antichità. *Num. Chron.*: Numismatic Chronicle. *Num. Z.*: Numismatische Zeitschrift. *N. Arch. Ven.*: Nuovo Archivio Veneto. *N. Bull. Arch. Crist.*: Nuovo Bullettino di Archeologia cristiana.

Or. Lit.: Orientalistische Literaturzeitung. *Or. Lux*: Ex Oriente Lux.

Pal. Ex. Fund.: Quarterly Statement of the Palestine Exploration Fund. *Πρακτικά*: Πρακτικά τῆς ἐν Ἀθήναις ἀρχαιολογικῆς ἐταιρείας. *Proc. Soc. Ant.*: Proceedings of the Society of Antiquaries.

Rass. d'Arte: Rassegna d'Arte. *R. Tr. Eg. Assy.*: Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes. *Rend. Acc. Lincei*: Rendiconti d. r. Accademia dei Lincei. *Rep. f. K.*: Repertorium für Kunstwissenschaft. *R. Assoc. Barc.*: Revista de la Asociacion artistico-arqueologica Barcelonesa. *R. Arch. Bibl. Mus.*: Revista di Archivos Bibliotecas, y Museos. *R. Arch.*: Revue Archéologique. *R. Art Anc. Mod.*: Revue de l'Art ancien et moderne. *R. Art Chrét.*: Revue de l'Art Chrétien. *R. Belge Num.*: Revue Belge de Numismatique. *R. Bibl.*: Revue Biblique Internationale. *R. Ép.*: Revue Épigraphique. *R. Ét. Anc.*: Revue des Études Anciennes. *R. Ét. Gr.*: Revue des Études Grecques. *R. Ét. J.*: Revue des Études Juives. *R. Hist. Rel.*: Revue de l'Histoire des Religions. *R. Num.*: Revue Numismatique. *R. Or. Lat.*: Revue de l'Orient Latin. *R. Sém.*: Revue Sémitique. *R. Suisse Num.*: Revue Suisse de Numismatique. *Rh. Mus.*: Rheinisches Museum für Philologie, Neue Folge. *R. Abruzz.*: Rivista Abruzzese di Scienze, Lettere ed Arte. *R. Ital. Num.*: Rivista Italiana Numismatica. *R. Stor. Ant.*: Rivista di Storia Antica. *R. Stor. Calabr.*: Rivista Storica Calabrese. *R. Stor. Ital.*: Rivista Storica Italiana. *Röm.-Germ. Forsch.*: Bericht über die Fortschritte der Römisch-Germanischen Forschung. *Röm.-Germ. Kb.*: Römisch-Germanisches Korrespondenzblatt. *Röm. Mitt.*: Mitteilungen d. k. d. Archäol. Instituts, Röm. Abt. *Röm. Quart.*: Römische Quartalschrift für christliche Altertumskunde und für Kirchengeschichte.

Sächs. Ges.: Sächsische Gesellschaft (Leipsic). *Sitzb.*: Sitzungsberichte. *S. Bibl. Arch.*: Society of Biblical Archaeology, Proceedings.

W. kl. Phil.: Wochenschrift für klassische Philologie.

Z. D. Pal. V.: Zeitschrift des Deutschen Palästina Vereins. *Z. Aeg. Sp. Alt.*: Zeitschrift für Aegyptische Sprache und Altertumskunde. *Z. Alttest. Wiss.*: Zeitschrift für alttestamentliche Wissenschaft. *Z. Assy.*: Zeitschrift für Assyriologie. *Z. Bild. K.*: Zeitschrift für Bildende Kunst. *Z. Ethn.*: Zeitschrift für Ethnologie. *Z. Morgenl.*: Wiener Zeitschrift für die Kunde des Morgenlands. *Z. Morgenl. Ges.*: Zeitschrift der deutschen Morgenländischen Gesellschaft. *Z. Mün. Alt.*: Zeitschrift des Münchener Altertumsvereins. *Z. Num.*: Zeitschrift für Numismatik.

PUBLICATIONS OF THE ARCHAEOLOGICAL INSTITUTE

Annual Reports

Reports II–XVII. (1881–1896.) Each, \$0.50. The First Annual Report (1880), with accompanying papers by LEWIS H. MORGAN, W. J. STILLMAN, and JOSEPH THACHER CLARKE (Pp. 163. Illustrated), is out of print.

Papers—Classical Series

- Vol. I. (1882.) Report on the Investigations at Assos, 1881. By JOSEPH THACHER CLARKE, with an Appendix containing Inscriptions from Assos and Lesbos, and Papers by W. C. LAWTON and J. C. DILLER. 8vo. Pp. 215. Boards. Illustrated. \$3.50.
- Vol. II. (1897.) Report on the Investigations at Assos, 1882, 1883. By JOSEPH THACHER CLARKE. With an Appendix on the Relations of Modern to Ancient Life. 8vo. Pp. 330. Boards. Illustrated. \$3.50.
- Vol. III. No. 1. (1890.) Telegraphing among the Ancients. By A. C. MERRIAM. 8vo. Pp. 32. \$0.50.

Papers—American Series

- Vol. I. (1881.) 1. Historical Introduction to Studies among the Sedentary Indians of New Mexico. 2. Report on the Ruins of the Pueblo of Pecos. By A. F. BANDELIER. 8vo. Pp. 135. Boards. Illustrated. *Second Edition*. \$1.00.
- Vol. II. (1884.) Report of an Archaeological Tour in Mexico in 1881. By A. F. BANDELIER. 8vo. Pp. 326. Boards. Illustrated. (*Out of Print*.)
- Vol. III. Part I. (1890.) Final Report of Investigations among the Indians of the Southwestern United States, carried on mainly in the years from 1880 to 1885. By A. F. BANDELIER. 8vo. Pp. 218. Boards. Illustrated. \$3.00. (*Out of Print*.)
- Vol. IV. (1892.) Part II of above Report. 8vo. Pp. 591. Boards. Illustrated. \$3.00.
- Vol. V. (1890.) Contributions to the History of the Southwestern Portion of the United States. By A. F. BANDELIER. 8vo. Pp. 206. Boards. Map. \$2.00.

Reports, Index

- REPORT ON THE WOLFE EXPEDITION TO BABYLONIA IN 1884, 1885. By WILLIAM HAYES WARD. (1886.) Pp. 33. Paper. \$0.50.
- REPORT OF THE FELLOW IN AMERICAN ARCHAEOLOGY, 1902–1905. A Comparative Study of the Mayas and the Lacandonones. By ALFRED M. TOZZER. Pp. xiii, 195. 41 plates. Paper. \$1.25.
- INDEX TO PUBLICATIONS OF THE INSTITUTE AND OF THE SCHOOL AT ATHENS, 1879–1889. By W. S. MERRILL. (1891.) Pp. 89. Boards. \$1.00.

American Journal of Archaeology, Second Series. One volume (four numbers) annually, beginning in 1897. Each, \$5.00.

INDEX TO AMERICAN JOURNAL OF ARCHAEOLOGY, *Second Series*. Vols. I.–X. (1897–1906.) Paper. \$1.00.

Bulletin of the Archaeological Institute of America. One volume annually, beginning in 1910. Each, \$1.00.

Art and Archaeology non-technical illustrated magazine. One volume (six numbers) annually beginning July 1914; monthly beginning in 1916. \$3.00 per annum.

The Argive Heraeum. Published for the Institute and the School at Athens.

The Argive Heraeum. By CHARLES WALDSTEIN, with the coöperation of G. H. CHASE, H. F. DE COU, T. W. HEERMANCE, J. C. HOPPIN, A. M. LYTHGOE, R. NORTON, R. B. RICHARDSON, E. L. TILTON, H. S. WASHINGTON, and J. R. WHEELER. In two volumes. Large quarto. Boston and New York: Houghton, Mifflin & Co. Vol. I, 1902; Vol. II, 1905. \$30.00 for the two volumes, in cloth; \$60.00, in full morocco (\$20.00, in cloth, for members of the Institute and of the Managing Committee. \$44.00, in full morocco).

The Codex Venetus of Aristophanes. Published by the Institute and the Society for the Promotion of Hellenic Studies.

ΑΡΙΣΤΟΦΑΝΟΣ ΚΩΜΩΙΔΙΑΙ. Facsimile of the Codex Venetus Marcianus 474. With a preface by JOHN WILLIAMS WHITE, and an Introduction by T. W. ALLEN. Pp. 23 + 344. London and Boston. 1903. \$35.00, in portfolio; \$36.75, in half morocco.

All publications of the Institute and of the Affiliated Schools may be procured through the Archaeological Institute of America, Columbia University, New York City; or through THE MACMILLAN COMPANY, 64–66, Fifth Avenue, New York.

TWO ROMANESQUE SCULPTURES IN FRANCE
BY ITALIAN MASTERS

WHILE discussing in a recent number of the JOURNAL¹ the early jamb sculptures of France, I was obliged to exclude from consideration those of Bourg-Argental (Loire) and in the museum of Le Puy, as they were known to me only from publications not sufficiently detailed to make an analysis of style possible. I have now, however, been able to visit the monuments on the spot, and as they throw no little light not only upon the question of jamb sculptures, but also upon broader aspects of Romanesque art, it seems well to add a note of supplement to my former paper.

The most striking fact that came to my observation at Bourg-Argental (Figs. 1, 2) was that the sculptures are the work of an artist whom I already knew well. This portal is obviously by the same hand that carved the capitals of the cloister of S. Orso (Figs. 3, 9) at Aosta in the years immediately following 1133.²

The sculptor of the S. Orso cloister is known to us as a follower of another anonymous artist who carved the pulpit at Isola S. Giulio (Fig. 4) *ca.* 1120. Besides the capitals at Aosta (Figs. 3, 9), there may be attributed to him three other capitals coming from the same cloister and now in a museum of Turin, and a statuette in the Metropolitan Museum of New York.³ I had already deduced from the style of the latter that our master had been in France,⁴ although I confess that this did not lessen my surprise at stumbling upon one of his works in the heart of the Cevennes.

That the Bourg-Argental sculptures (Figs. 1, 2) are really by the same master, not merely of the same atelier, does not seem to me open to doubt. The columns decorated with spiral rinceaux are a motive characteristic of the school, and which our artist appears to have taken over from his master at Isola S. Giulio (Fig. 4). These columns, the use of flinty marble, the strong classical feel-

¹ Vol. XXII, 1918, pp. 418 ff.

² See Porter, *Lombard Architecture*, I, p. 290; II, pp. 57, 60 ff.

³ Reproduced *A. J. A.* XXII, 1918, p. 419.

⁴ *Ibid.* p. 426.



FIGURE 1.—MASTER OF THE SANT' ORSO CLOISTERS: PORTAL AT BOURG-ARGENTAL.

ing, an adamantine hardness of attack are the most striking analogies which connect our portal with the Aosta cloisters. A closer examination reveals the same resemblance in details of execution. The convention used to indicate the eyes—unique I

think in mediaeval sculpture—the draperies, the peculiar broad noses, the treatment of the hair are all identical in the two works. The capitals at Bourg-Argental are indistinguishable in style from those of Aosta. There are the same angular metallic figures in the same contorted poses. The identity of workmanship is made all the easier to recognize by the strong individuality of our artist, which is sharply differentiated from that of all other sculptors of the period.

The sculptures at Bourg-Argental necessitate a revision in some details of the impression of this artistic personality gained solely on the basis of works previously known. At Aosta (Figs. 3, 9) I was able to detect but little trace of the influence of Nicolò and only distant echoes of that of earlier Lombard sculptors such as Guglielmo da Modena. Our artist seemed to derive his inspiration rather from the school of Pavia, and even here indirectly, by way of the Isola S. Giulio pulpit (Fig. 4). This pulpit itself seemed to me not purely Italian, but to show the influence of southern France in the classicism of its ornament.¹

The Metropolitan statuette showed two distinct influences which if found on the Aosta cloisters were so disguised as to be hardly recognizable. The first was the French feeling already referred to; the second was the evident imitation of Nicolò. In view of this I did not dare attribute the Metropolitan statuette to the hand of the Aosta sculptor, while recognizing that it was obviously of the same atelier.²

Now the sculptures at Bourg-Argental (Figs. 1, 2) make it clear that the Metropolitan figure is really by the Aosta artist, for they show that he underwent exactly these two influences. The very fact that he worked in France would be sufficient to justify the inference that he must have picked up some acquaintance with the French manner. We should, indeed, expect him to show precisely such traces of French influence as are exhibited by the New York figure. More than this the Bourg-Argental portal (Fig. 2) makes it clear that he adopted several purely French motives. The lunette with the Deity in an aureole surrounded by the evangelists and angels is certainly a weak imitation of Burgundian models. The type of face on the

¹ Porter, *Lombard Architecture*, I, p. 257. The St. Matthew is in certain respects strikingly similar to the St. Matthew in the upper part of the façade of the cathedral at Modena.

² See *A. J. A.* XXII, 1918, p. 426.



FIGURE 2.—MASTER OF THE SANT' ORSO CLOISTERS: TYMPANUM OF THE PORTAL, BOURG-ARGENTAL.



FIGURE 3.—MASTER OF THE SANT' ORSO CLOISTERS: CAPITAL OF THE CLOISTER OF SANT' ORSO, AOSTA.

other hand is closely analogous to that of the local school of Le Puy.

What is even more patent in the sculptures of Bourg-Argental, and rather surprisingly, is the influence of Nicolò. This appears not only in the smallish figures adossed to the colonnettes, which like the similar motive in the Metropolitan statuette could only have been derived from that master's work at Ferrara (Fig. 5) or Verona (Fig. 6). It, indeed, permeates the entire doorway. The rinceau and guilloche beneath the lintel are identical in spirit with those of the Ferrara portal. The lower register of the lintel is divided into scenes separated by an arcade. This motive was used by Nicolò at Piacenza (Fig. 7), and later repeated at Ferrara (Fig. 8). The pattern on certain of the colonnettes of this arcade at Bourg-Argental (Fig. 2) and Ferrara (Fig. 8) is the same. Inscriptions are placed on the horizontal bands dividing the registers at Bourg-Argental and at Piacenza (Fig. 7). The horse of the magi at Bourg-Argental (Fig. 2) repeats line for line the horse of the *Flight* in the Piacenza archivolt (Fig. 7), except in the head where quite evidently the inferior sculptor found himself unable to copy his model.¹ Even more striking, the *Annunciation* (Fig. 2) repeats almost exactly that of Ferrara (Fig. 8).

These observations are of some aid in determining the date of the Bourg-Argental portal. The style seems broader and more experienced than that of the Aosta cloisters. Bourg-Argental must, therefore, be later than 1133. It must, indeed, be later than 1135, since it shows copying of the Ferrara sculptures, executed in that year. I conjecture that it probably was carved between 1135 and 1140. That it was not later may be inferred from the fact that our sculptor betrays no acquaintance with the works of Nicolò at S. Zeno and the cathedral of Verona. S. Zeno was given its portal in 1138, while that of the cathedral dates from the following year.

The Bourg-Argental sculptures are extremely instructive in showing us exactly how artistic ideas were transmitted from one country to another in mediaeval Europe. We see in them our artist carrying the art of Nicolò half across the continent, from Ferrara to the Cevennes. We are somewhat less amazed than

¹ Our artist was more successful in a capital of the S. Orso cloisters (Fig. 9). But the superb horse of Nicolò's St. George at Ferrara was beyond even his ambition (Fig. 8).



FIGURE 4.—PULPIT AT ISOLA SAN GIULIO, LAGO D'ORTA.

before at the close analogies which exist between the sculptures of the school of Poitou and those of northern Italy.

It is even possible to follow the infiltration of Nicolò-esque influences one step further. The jamb figures in the museum of

Le Puy (Fig. 10) are evidently derived from Bourg-Argental. This is clear from the draperies, the scrolls, the gestures with which the scrolls are held, the socles, and the capitals. The "Karitas" on the capital of the foremost colonnette of the Le Puy museum (Fig. 10), indeed, is copied exactly from the precisely similar figure on the outer right-hand capital at Bourg-Argental (Fig. 1). The derivation of the Le Puy sculptures is, therefore, not open to doubt.¹

The fact that Nicolò's jamb sculptures had found their way half the distance from Ferrara to Paris within, it seems, five years of the time that they had been created in Italy shows how quickly artistic ideas were transmitted and passed from one country to another at this period. The exact knowledge thus gained also makes a closer examination of the entire subject of jamb sculptures necessary.

One's thought naturally turns to the holy-water font at Chamalières (Haute-Loire), since geographically

¹ Something in the faces of these figures suggests acquaintance with St.-Etienne of Beauvais. Were they blown upon by winds from the north as well as from the south?

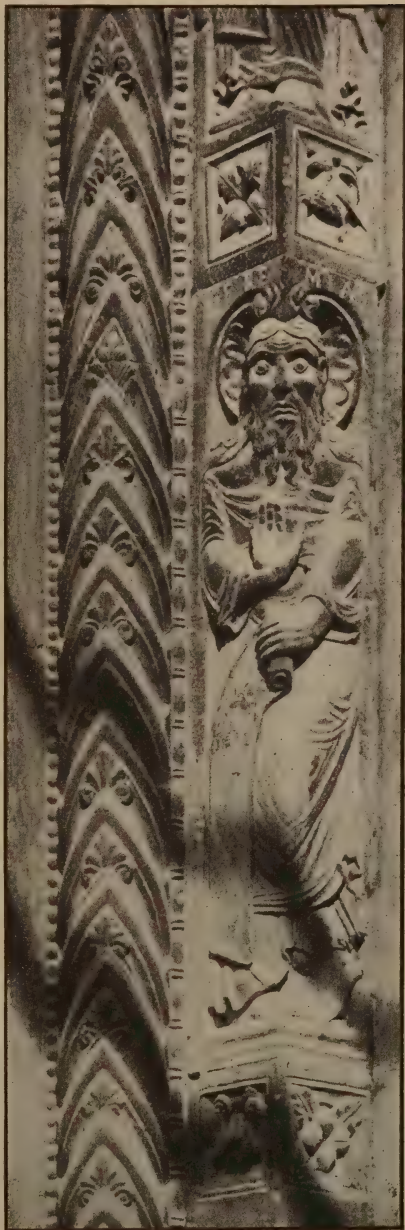


FIGURE 5.—SCULPTURE ON JAMB,
FERRARA: NICOLÒ.



FIGURE 6.—JAMB OF THE CATHEDRAL, VERONA: NICOLÒ.

this is situated in the same region with the monument we have just been studying. I formerly supposed that this basin (Fig. 11), notwithstanding its obviously Nicolò-esque character, was later than 1140, being misled by the style of one of the heads, as seen in photographs. This head, however, I find upon study of the monument itself, is no part of the original sculpture, but brought from elsewhere and arbitrarily added by modern restorers. I am now very far from sure that the Chamalières basin is later than 1140.

A close study of the style of this basin has, indeed, convinced me that like the Bourg-Argental portal, it too is by the hand of a



FIGURE 7.—LINTEL OF THE CATHEDRAL, PIACENZA: NICOLÒ.



FIGURE 8.—LINTEL OF THE CATHEDRAL, FERRARA: NICOLÒ.

Lombard sculptor. This hand, in fact, is none other than that of Nicolò himself.

Not only is the Chamalières basin by Nicolò, but it dates from his Ferrarese period. The style is far more suave and developed than in his earlier productions at Piacenza (Fig. 7). On the other hand it is less mannered than the jamb sculptures of Verona (Fig. 6). When, however, the Chamalières basin is compared with the jamb sculptures of



FIGURE 9.—MASTER OF THE SANT' ORSO CLOISTERS: CAPITAL OF THE CLOISTER OF SANT' ORSO, AOSTA.



FIGURE 10.—FOLLOWER OF
THE MASTER OF THE SANT'
ORSO CLOISTERS: SCULP-
TURES OF THE HOTEL DIEU:
MUSEUM, LE PUY.

Ferrara (Fig. 5), it is evident that we have in the two works the closest analogies. There are the same draperies, the same hands, the same eyes, the same beards, the same noses, the same lips, the same scrolls, the same niches, the same hair. Indeed, the basin at Chamalières resembles the jambs of Ferrara much more closely than do Nicolò's signed works at Sagra S. Michele and Verona. It seems, therefore, impossible to doubt that it is by his hand.

The question arises how this work found its way into the heart of the Cevennes. Did Nicolò, like his pupil, the master of the S. Orso cloisters, undertake a journey into the Velay? There is plenty of evidence in his works to show that he did travel in France, although rather in the south-west, in Languedoc and Aquitaine. It seems to me, however, more probable that this basin was exported from Italy, and carried to Chamalières. It will doubtless be objected that the basin is an exceedingly weighty object to have been transported in this manner. Yet we know that far more complicated shipments were made in the twelfth century. The great ambulatory columns of Cluny, for example, the transportation of which would be something of a problem at

the present day, and in comparison with which the Chamalières basin seems a mere trifle, were brought all the way from Rome to Burgundy. The transportation of the Chamalières basin would have been all the easier, because it could have been sent most of the way by water, across the sea and up the Rhone.

If we assume that the basin was thus imported, we can explain two facts that otherwise would be puzzling. The first is that

Nicolò never betrays in his work acquaintance with the local style of the Velay; and the second that his hand and even his influence, at least so far as I can see, are absent from the other sculptures of Chamalières. Had the great Nicolò "so famous among sculptors" actually been there, it is difficult to believe that advantage would not have been taken of his presence to procure other works. If, however, we suppose that the basin was imported, all is explained.

I am even tempted to imagine that the journey of the master of the S. Orso cloisters to Ferrara may not have been unconnected with the purchase of the basin. There is at least no doubt that that artist saw Nicolò's work at Ferrara, and that the basin was made by Nicolò at precisely this time. I offer this suggestion of course as a mere conjecture. The certain thing is that the basin of Chamalières was executed by Nicolò and about the year 1135.

The history of the motive of jamb sculptures begins in the light of these facts to seem somewhat less obscure. We see the idea, initiated by Guglielmo at Cremona before 1117,¹ taken up and developed by his pupil Nicolò in 1135 at Ferrara (Fig. 5). We see the motive in Nicolò's version spreading immediately into France. The basin at Chamalières (Fig. 11) is by Nicolò's own hand. The jamb figures of Bourg-Argental (Fig. 1) are by a follower. Those of Le Puy (Fig. 10) are derived from Bourg-Argental. The similar figures of St.-Etienne of Toulouse² are for me without doubt also inspired by the art of Nicolò.

¹ The jamb sculptures at Cremona have been frequently illustrated, *e.g.*, *A.J.A.* XXII, 1918, p. 416.

² Illustrated, *e.g.*, *A.J.A.* XXII, 1918, p. 418.



FIGURE 11.—HOLY-WATER BASIN, CHAMALIÈRES: NICOLÒ.

The question remains where and how did the builders¹ of St.-Denis¹ become acquainted with the motive. This I shall immediately confess I am unable to answer.

I shall only observe, in the hope of throwing some one else on the track of a solution, that St.-Denis is a compound of inspirations derived from many quarters. Suger appears to have gathered ideas from the four corners of the world. In his work we find combined with the building forms indigenous to the Ile-



FIGURE 12.—CAPITAL IN THE CRYPT OF ST.-DENIS.

de-France, sexpartite vaults of Normandy, sculpture of Aquitaine, and voussures of Saintonge. M. Mâle would have us believe that even the humble work at Beaulieu contributed its quota, and it may be suspected that St.-Basilé of Etampes was also drawn upon. Whence the stained glass came, no one knows, but it is hardly likely that Suger invented the art. The windows of St.-Denis are obviously not the first attempt of a novice, but the production of artists who were working in a medium with which they were well acquainted. Suger, moreover, expressly

¹ One of Montfaucon's engravings is reproduced, *A.J.A.* XXII, 1918, p. 400.

states that his glass-workers were imported. It is also sure that Suger was in touch with the building operations at Cluny. He writes of bringing marble columns from Rome by water in obvious

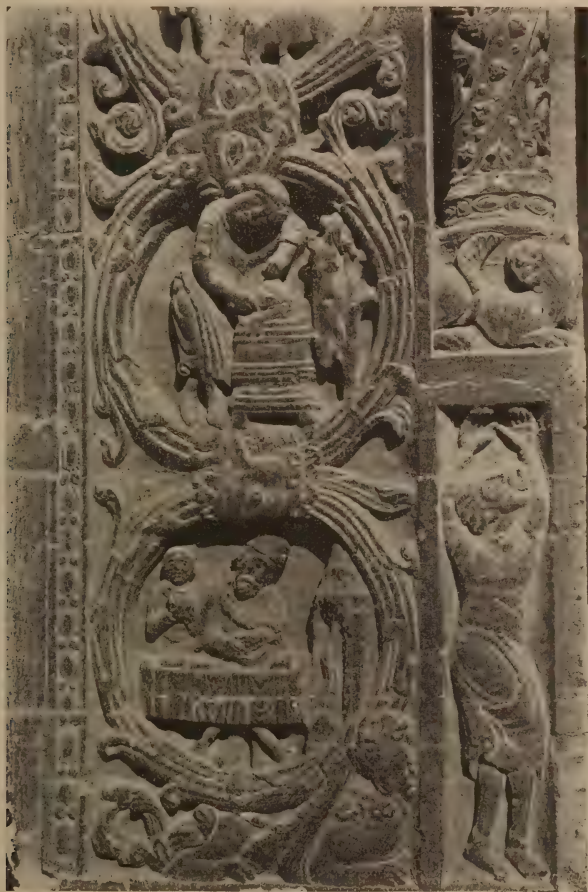


FIGURE 13.—JAMB OF ST.-DENIS.

imitation of what, as we have already mentioned, had actually been done at the Burgundian monastery.

It is not less certain that the architecture of St.-Denis was influenced by Lombardy, especially in its ornamental and decorative details. The mosaics were assuredly purely Italian. The caryatids of the western portal are a characteristically Guglielmo-esque motive, and have Guglielmo-like draperies (Fig. 13).

Nothing could be more completely Lombard than the lion with his tail between his legs supporting the colonnette. This colonnette itself¹ is decorated with spirals and ornaments in the manner we have observed to be peculiar to the masters of the Isola S. Giulio pulpit and the S. Orso cloister. The reliefs of the zodiac show striking analogies with the sculptures of the same subject at Modena. A capital of the crypt has on the abacus a completely Lombard anthemion (Fig. 12). The angels in the voussures, heavy and expressionless, are of Lombardic, rather than of



FIGURE 14.—SCULPTURES OF LA DAURADE: MUSEUM, TOULOUSE.

Aquitanian type. The figures of the virgins in arches surmounted by tabernacles recall Guglielmo's prophets at Modena. The peasant quality of the broad squat figures is also reminiscent of Guglielmo.

It seems certain, therefore, that the sculptors of St.-Denis were familiar with the work of Guglielmo at Modena. I cannot, however, detect evidence that they were acquainted either with Cremona or with the works of Nicolò. It should be borne in

¹ It is of course modern, but perhaps copied from an authentic ancient fragment.

mind in this connection that Modena is on the Via Emilia, and hence upon the route taken by French travellers, while Cremona and Ferrara would both be out of their way. It seems to me, therefore, possible, but not certain, that the builders of St.-Denis derived their jamb sculptures from Italy directly.

On the other hand it is admitted that the artists of St.-Denis copied freely the sculpture of Aquitaine. But the jamb sculptures of La Daurade at Toulouse (Fig. 14) seem to me very clearly to be derived from, rather than prototypes of, St.-Denis and Chartres: and it remains quite uncertain whether there exists in Aquitaine any example of jamb sculptures anterior to 1140. At all events, the facts that the portal of Bourg-Argental is by the master of the S. Orso cloister, and that the Chamalières basin is by Nicolò, will, I trust, furnish a secure starting-point for future investigations.

A. KINGSLEY PORTER.

UNPUBLISHED DOCUMENTS RELATING TO THE
WILL OF ANDREA DELLA ROBBIA

[PLATE I]

ON Sept. 14th, 1522, Andrea di Marco della Robbia made his Last Will and Testament (Doc. 2) and on Feb. 18th, 1522 (modern style 1523), added a Codicil (Doc. 8) to it. The discovery of these documents is due largely to Gaetano Milanese, who found the Registration Entry (Doc. 1) of the Will in the Register of the Opera di Santa Maria Novella. As this entry gives the name of the notary (Ser Giuliano di Ser Domenico da Ripa) who drew the instrument, I was able to locate it and the Codicil among his papers.¹ It seems more than probable that Milanese contented himself with the information given in the Registration Entry² and that he never saw the Will, Codicil, or Revocation, as no further reference is made to them in his *Miscellanea*. In any event he appears to have made no transcription of them, and, so far as I know, Documents 2, 3, and 4 have not been deciphered before. Accordingly, I have felt that a new and useful contribution has been made to the study of the life of Andrea della Robbia in bringing these documents to light.

The Will consists of two sheets of paper, three sides of which are covered with the atrocious handwriting of Ser Giuliano, and the Codicil of one sheet, both sides of which are filled with his chirography. The Revocation was written by Ser Giovanpiero Borghesi, and is in a bound volume of his notarial writings; his handwriting, however, is much better than that of his col-

¹ It may be well to explain that Documents 2, 3, and 4 are copies of the original Will, Codicil, and Revocation, and were kept by the notaries, who drew the instruments, as records of the transactions. The executed instruments themselves were deposited with the city authorities and are probably no longer in existence. However, the information given by these copies is as full as that which the originals themselves supplied, as they give the complete texts of the originals, with the exception of the signatory clauses which could have given little, if any, further information of value.

² His partial transcription of which I found when searching the numerous volumes of his notes, now preserved in the Communal Library of Siena; the note in question being in Milanese, *Miscellanea*, 39, III, P. c. 23.

Handwritten text in a cursive script, likely a will or legal document. The text is written on a single sheet of paper, showing signs of age and wear. The script is dense and fills most of the page. The text is written in a cursive script, likely a will or legal document. The text is written on a single sheet of paper, showing signs of age and wear. The script is dense and fills most of the page.

THE WILL OF ANDREA DELLA ROBBIA, PAGE 2: FLORENCE.

league. Aside from the difficulty presented by Ser Giuliano's handwriting, the task of transcription has been rendered still more arduous by the many abbreviations, cancellations, and interlineations, which appear in the original texts of Documents 2, 3, and 4; and, except for the cordial and precious aid received from Dr. Umberto Dorini, Dr. Achille De Rubertis and Dr. Giovanni Cecchini of the Florentine Archives, I should have been constrained to publish the documents with many omissions. Thanks, however, to their generous efforts the documents appear below practically in their entirety; and it is a pleasurable duty to express to these gentlemen my lively appreciation of and gratitude for the incalculable assistance which has been received at their hands.

In view of the importance of the documents, I have thought it well to publish with them a photograph of the second page of the Will (PLATE I) in which appear the legacies to Andrea's wife, Domina Nannina, and the first part of the long clause dealing with those bequeathed to his three lay sons Giovanni, Luca, and Girolamo. The reader, with the document reproduced before him, will be in position to appreciate the difficulties which presented themselves to the transcriber.

Turning now to an examination of the Will itself, we find that it was executed in the Sacristy of the Church of San Marco, and before seven witnesses as prescribed by law. It may not be out of place to explain that the word "*hore*" is an old form of *ore*, from *os* meaning mouth. The quaintly worded preamble calls for no comment; nor do those clauses, to which no specific reference is made, as their meaning is clear.

The second clause, in which the testator bequeathes lib. 3 to the Opera di Santa Maria del Fiore, appears generally in wills of the early part of the sixteenth century (how much later I do not know) and represents the customary charge for registering the instrument. This charge seems to have varied between lib. 3 and lib. 4 and was destined to help pay for building operations connected with the Cathedral and the new city walls.

In Clause 4 the nuns mentioned were Andrea's daughters, Caterina and Margherita, who took the habit in the Dominican Monasterio di San Luca in 1496 and 1502 respectively.

It will be observed in the sixth clause that Andrea's wife, Domina Nannina, besides having the entire use of the *podere* (farm) at San Giorgio a Ruballa to recompense her for her

dowry, is also given free entry and certain other rights in the home bequeathed by Andrea to his youngest son, Girolamo.

In the long eighth clause the testator divides the remainder of his property in equal portions between his three lay sons Giovanni, Luca, and Girolamo. The words, "*volens tollere scandala que solent sepe oriri in divisionibus bonorum*" (wishing to dispel the scandals which are accustomed to arise often in the division of property), were put in by Andrea probably because of his own experience as a legatee. It will be recalled that his uncle, Luca di Simone della Robbia, bequeathed the *bottega* and its good will to Andrea and the rest of his possessions to Simone, Andrea's brother, giving as his reason for so doing that Andrea, having been trained by him as his successor in the craft, had a prosperous business at his command; but that Simone, not having had the benefit of similar training, was not equipped to face the world as well as his brother, and that, therefore, everything that his uncle owned outside of the *bottega* should with propriety go to him. This division of Luca's estate seems to have aroused bad feeling between the brothers, for we find in the records of the Capitolo della Metropolitana, to which the della Robbia house on Via Guelfa belonged, that in 1485¹ Simone ceded all his rights in the home to Andrea and left it. Later documents show that he settled in the Popolo di Sant' Ambrogio. This family quarrel appears to have lasted until death, as the records of Simone's decease in 1521 state that he was buried in Sant' Ambrogio instead of in the family vault in San Piero Maggiore. It seems highly probable, therefore, that Andrea had this regrettable experience very vividly in mind when he made his own will and that he did all that he could to avoid a similar scandal after his death by leaving his property to his three sons, share and share alike. The words "*et dividet domos*," which follow immediately after the extract cited above, were an afterthought of the notary as will be seen in the photograph of the Will. As they are clearly parenthetical, they have been placed between commas in the transcription, although they do not so appear in the original. A learned Italian friend of the writer has made the interesting suggestion that these words are a covert reference to Luke XI, 17, "a house divided against a house falleth."

As to how Andrea made provision for the homes for his three sons I refer the reader to the Will itself, merely pointing out that

¹ 'Nuovi Documenti Robbiani,' *L'Arte*, XXI, 1919, pp. 190 ff.

the furnace and mixing troughs used by Andrea for his craft were in a room between the kitchen and the garden of the house on Via Guelfa. This room, known as the "*anticucina*," was bequeathed to Girolamo; although the text would seem to indicate that Giovanni was also to share in its use. Prior to the discovery of the Will, it was assumed that the furnace was located in the garden.

Coming now to the Codicil we observe that it was executed in Andrea's home on account of his ill health ("*licet corpore languens*") and in the presence of but five witnesses, the number prescribed for a Codicil according to the law of that time. In the first clause Andrea limits the legacy to his daughter, Maria, to the lifetimes of herself and her husband, Tomaso Fantini. The latter died between 1522/23 and June, 1524. Thereupon Ser Giuliano cancelled part of the clause and wrote the marginal note to the effect that, as Tomaso had died, nothing was due to Maria and the legacy was null and void. In Clause 2 Andrea alters his disposition regarding the homes bequeathed to Girolamo and Giovanni, and finally leaves the sole use of all the "*anticucina*" with the furnace and mixing troughs to Giovanni. Girolamo is compensated for the loss of his interest in the "*anticucina*" by the bequest of a small room in the home willed to Giovanni, subject to certain conditions.

On June 3rd, 1524, apparently in the Assembly Hall of the Guild of the Masters of Stone and Wood, Andrea revoked (Doc. 4) his Will and, as he gave no reasons for his action, we can only surmise as to what they were. It seems very probable that the contents of his Will and Codicil were known to his heirs and that they caused dissatisfaction, as Luca does not appear to have received as much consideration as Giovanni and Girolamo did. It may also have been the case that each of the brothers coveted the furnace and mixing troughs, the sole use of which had been left to Giovanni, and that the old father was pestered by the other two sons to make changes in the Will in their favor. Such suppositions may explain why Andrea revoked his will as the only way out of the difficulty, since, if he died intestate, the law would arrange for the division of his possessions among his heirs. If this supposition be true, Andrea's wife must have been dead, as, had she been alive, he would certainly have made some provision for her, even if he was unwilling to take any action as regards his sons. But, whether these suppositions be true or

false, the facts are that after he had revoked his Will, Andrea never made another, although he lived until Aug. 4th, 1525. That he did not do so is clearly proved by the petition¹ made by Giovanni in July, 1529, for the purpose of securing his third of his father's inheritance. In this petition Giovanni declared that his father "*mortuum esse et decessisse ab intestato.*"

On Jan. 31st, 1529 (modern style 1530), Giovanni paid the fee for registering his claim (as also probably those of Luca and Girolamo, which had been sent by them from Paris, as we know from documents) as is seen in Doc. 1, and it is fair to assume that he received his inheritance at about that time. Fate willed that he was not to enjoy it long, for he died before March 24th of the same year, doubtless of the plague, as no record of his death is to be found in the *Libri dei Morti* either of the Officio della Grascia or of the Guild of Physicians and Apothecaries. In the number of *L'Arte* last mentioned a document will be found stating that Giovanni's wife was a widow prior to March 24, 1529 (modern style 1530). Giovanni's death was doubtless recorded in the books of the Misericordia, where all deaths from contagious diseases were noted, but my researches in the Archives of the Brotherhood did not result in the discovery of any record of those who died of the plague during February or March, 1529/30.

DOCUMENTS

1. (At the top of the page: Ser Giuliano di Ser Domenico da Ripa)

Andreas Marci Simonis della Robbia condedit
testamentum die 14 Septembris 1522. Here-
des instituit Johannem Lucam et Jeroni-
mum eius filios.

lib. 3-15

Die 31 Januarij 1529 (modern reckoning
1530) solvit Johanni marie de Corbi-
nellis camerario c. 4 lib. tres cum $\frac{9}{4}$

(quarto) Johannes Andree della Robbia.

lib. 3-15

[*Archivio di Stato, Archivio Notarile Appendice, Registro di Testamenti Santa Maria Novella, N° VIII, segnato Cod. 89 c. 98*]

2. (In margin six notes all in the handwriting of Ser Giuliano, except N° 2, which appears to have been added in the 18th or 19th century with the day of the month incorrectly given: Testamentum Andree Marej della Robbia—1522 4 (*sic*) settembris 177—Sunt codicillos in manu mei—Mixi ad operam—Data fides ut patet—Est revocatus manu ser Johannis petrj de Borghesis.)

¹ Published by me in 'Nuovi Documenti Robbiani, Seconda Serie' *L'Arte*, XXII, 1919, p. 110.

+yhs

In Dominj Nomine Amen Anno Dominj Incarnationis 1522 Indictione x et die 14 settembris Actum Florent. jn populo Scī Laurentij Florentie et jn sagrestia ecclesie Scj Marcj de Florentia presentibus jbid venerabilibus viris

Fratre Paulus Johannis de Cavalcantibus de Prato

Fratre Pacifico Filippi de Gualteritis

Fratre Nicholaio Mariotti de Sexto

Fratre Bartolomeo Pauli de Finis

Fratre Johanni Ser Lionardi de Florentia

Fratre Angelo Petrj de Beninis

Fratre Francisco Johannis de Dinis

omnibus fratribus conventus Scj Marcj Florentie testibus ad jnfrascripta omnia et singula vocatis habitis et rogatis proprio hore jnfrascripti testatoris

Cum nihil sit certius morte nihilque jncertius hora eius hinc est quod prudens vir Andreas Marcj Simonis della Robbia popolj Scj Laurentij Florentie sanus per Dei gratiam sensu mente intellectu et corpore volens dum mens salubre est posteris de suis providere nolens jntestatus decedere sed de suis bonis providere per hoc suum nuncupatum testamentum quod dicitur sine scriptis de bonis suis disposuit fecit et ordinavit jn hunc qui sequitur modum et formam viz—

In primis quidem animam suam Omnipotentj Deo Eiusque Gloriose Matrij Marie semper Virginj et toti Celeste Curie Paradisi humilter ac devote racommandavit corporis autem suj sepulturam elegit jn sepulcro suorum predicesorum sito jn ecclesia Scj Petrj Maioris de Florentia et circa eius funus fierj voluit quod et quantum videbitur jnfrascriptis suis heredibus.

Item jure legati reliquit et legavit Opere Scē Marie del Fiore de Florentia nove sagrestie nuovi operi murorum jn totum sechundum ordinamenta Communis predicti libras tres f.p.

Item amore Dei et pro remedio anime sue voluit et reliquit quod infra otto dies proximos futuros post mortem dictj testatoris quod in ecclesia Scj Marcj celebrentur misse de Scj Gregorj et pro elimosina teneantur dare jnfrascripti sui heredes Florenum unum aurj largum in auro.

Item reliquit Sorori Sperantie et Sorori Angeline et cuilibet earum pro remedio anime sue Florenos decem auri largos in auro et ultra rasciam et pannum condecetes pro uno vestitu pro qualibet earum.

Item reliquit Marie sue filie pannum pro una cioppa (cappa) et unum strigatorium tempore mortis dictj testatoris et ultra predicta eidem reliquit quolibet anno quosque vixerit Florenos novem largos in auro et stinta eius vita naturalj presens legatus evanescat.

(At the head of the second page: + yhs Me (Marie). In margin: Mixi ad gabellam)

Item reliquit jure legati Domine Nannine sue (here the paper is torn but the missing words must be "*uxori per*") dotes suas quas dixit fuisse et esse Flor. ottingentos (here again the text is mutilated and the missing words were probably "*largos auri quos*") habuit jn contantibus a Comuni Florentie jam sunt annj quinquaginta et ultra et considerans bene merita ipsius Domine Nannine eidem reliquit et legavit usum fructum integrum praedij dictj testatoris positi in populo Scī Giorgij a Ruballa infra suos confines cum omnibus suis pertinentiis et cum usu omnium masseritiarum et besteaminarum et

bonorum mobilium existentium super dictis bonis tempore mortis dicti testatoris et ultra predicta reddam (reditum) in domo dicti testatoris infra assignate in portione infrascripti Hieronimi et usum camere cum omnibus suis fulcimentis tam de lignamine quam pro usu lettiere lettuce et cum lettis fornitis pro omni tempore et prout verioris retineat et retinet ipse testator ac etiam usum omnium suorum dicte domine pannorum lintorum et lanorum pro usu sui dorsj quousque vixerit. Et presens legatus voluit durare quousque non petierit dotes suas et liberavit dotes ab honore satisfaciendj et fidem prestandj decitandj (?) et faciendj ad arbitrio boni viri et a quacumque confectione inventarij qui intendet et vult ipsam terram ad restitutionem bonorum predictorum tam mobilium quam imobilium prout erunt et que et non essent usu consumpta.

Item reliquit eidem domine panna et strigam condecetes pro bruno faciend per dictum testatorem.

In omnibus autem suis bonis suos heredes universales instituit fecit et esse voluit Johannem Lucam et Hieronimum suos filios legitimos et naturales equis portionibus et, volens tollere scandala que solent sepe oriri in divisionibus bonorum, et dividet domos, in portione dictj Luce de bonis imobilibus jure legati reliquit et posuit unam domum cum suis habitationibus et pertinentiis positam in populo Scj Laurentij Florentie et in via que dicitur la Via Guelfa cuj a primo dicta via a ij palatium Domine Magdalene olim Petrj de Sassetis a iij infrascripta domus posita in portione dictj Hieronimj a 4 bona Capitoli Scē Marie del Fiore de Florentia. Pro tanto quanto est per latitudinem domus predictae una cum orto vinea que est retro dictam domum pro tanto quanto capiet latitudo domus predictae procedentem per altitudinem prout traet paries dividens domum predictam a domo infrascripti Hieronimj cum omnibus pertinentiis domus predictae et que domus et vinea est libera dicti testatoris et cum honore quod dictus Lucas non possit aliquid repetere ab heredibus dicti testatoris de his que hodie est creditor dictus testator et hoc quod domus ipsa est melioris conditionis infrascriptarum domorum. In portione vero dictj Hieronimj de bonis mobilibus jure legati reliquit posuit et esse voluit unam aliam domum cum suis habitationibus et pertinentiis et finimentis positam juxta suprascriptam domum muro comuni mediante una cum una stantia infrascripte domus assignare infrascripto Johanni, que est post cucinam domus infrascripti Johannis denominata lanticucina (here the third page commences with heading +yhs M*) in qua anticucina est furnus et truogoli reservato tamen (at this point the text is mutilated but the missing word was probably "arti") victreriarie, pro faciend unum anditum ad ortum pro domo dictj infrascripti Johannis braccia duo cum dimideo alterius bracci juxta parietem dividendum domum datam dicto infrascripto Johanni et domum Andree Venitianj in quibus braccijs duobus cum dimideo teneatur dictus Johannes fieri facere suis sumptibus unum parietem dividendum dictum andronem fiendj et residuum dicte stantie dicte antiquoquina (anticucina). Et in dicta portione domus date dicto Hieronimo voluit venire totum ortum qui fuit comprehensus a linea ortus datj dicto Luce usque a lineam rectam prout trahet linea recta dicti parietis fiendj per dictum Johannem ad cordam adeo quod ortus dictj Hieronimj erit pro tanto quanto capiet domus sua sibi sibi data (?) ac etiam pro tanto quanto capiet infrascripta domus data dicto infrascripto Johanni restens in portione dictj

Hieronimj, posuit totam integram vineam infrascripti ortus et in capite ortus dicte domus in portione supradictj Luce infra versus viam dictam Via Mozza adeo quod tota vinea que rimaneat non data dicto Luce jn sua portione restet et sit jn portione dictj Hieronimj cum honere tamen solvendj Capitolo Ecclesie Florentine libras quinque et sol. 4 quolibet anno pro livello debito pro dicta domo et hoc pro raguaglio eius jn quo et de quo ipse Hieronimus est creditor dictj testatoris quod voluit per eum pati possi. Et cuj domus a primo via predicta et a ij domus dictj Luce a iij domus jnfrascriptj Johannis a 4 Capitolum Florentinum.

In portione vero partis dictj Johannis de bonis mobilibus jure legati reliquit et posuit unam aliam domum positam juxta dictam domum datam dicto Hieronimo cum his infrascriptis duobus brachijs cum dimideo pro faciendo dictum andronem et cum toto residuo ortus rimanentis a dicta dirittura procedenti a dicto muro faciendj in dictis duobus brachijs cum dimideo supra versus Viam Mozzam et usque ad sepem qua sepes rimaneat et sit jn portione dictj Hieronimj cuj domus a primo via a ij dicta sepes a iij domus dictj Hieronimj a iiij dictus Andreas Venetianj et cum honere solvendj anno quolibet Capitolo Ecclesie Florentine libras quinque et sol. quatuor pro suo livello. Declarans quod puteus in quoquina (*cucina*) sit in comuni cum infrascriptis Hieronimo et Johanni. Et licet etc.

(On the fourth page, otherwise blank, the following notations: +yhs Me+—Cassans etc.—Ego Julianus olim Ser Dominicj Juliani de Ripa notarius Florent. dedi rogartus etc.)

[*Archivio idem, Rogiti di Ser Giuliano di Domenico da Ripa, Filza di Testamenti 1490-1546, segnato Notai G 532 N° 177*]

3. (In margin four notes all in Ser Giuliano's handwriting except the second which was written by the same hand which inscribed the similar note on the Will: Codicilli Andree Marcj Simonis della Robbia 1522 (modern style 1523) 18 februarij 183—Mixi ad operam—^xnon petierit dicta Maria cum viro suo et non ultra hic debeantur quod viro suo mortuo et evanescat presens legatus)

In Dei Nomine Amen Anno Domini Incarnationis mille quingento vigintesimo sechondo jndictione vj et die xvij mensis februarij 1522 Actum jn populo Scī Laurentij Florentie et jn domo infrascripti codicillatoris presentibus

Fratre Bartilozo Johannis de Cavalcantibus

Fratre Damiano Marcj de Beninis

fratribus Scj Marcj Florentie

Johanni Leonardj de Manischalcis

Marcello Leonardj de Vernacis

Francisco Julianj de Bonis

civibus Florentinis

Omnibus testibus ad infrascripta omnia et singula proprio hore jnfrascripti codicillatoris vocatis habitis et rogatis etc.

Cum ambulatorio sit voluntas usque ad mortem hinc est quod prudens vir Andreas Marcj Simonis della Robbia populi Scj Laurentij Florentie sanus per Dei gratiam mente sensu et intellectu licet corpore languens renumpans et recordans quod alias dictus Andreas manu mej notari infrascripti sub die xiiij mensis septembris proxime preterite vel alio die veriorj suum condedit testamentum jn quo pro hoc similiter disposuit inter alia que in eo continentur

post dictum conditum testamentum mutata sua voluntate circa infrascripta quodam in eo continentur hac particularj dispositione de bonis suis per hos presentes codicillos disposuit et ordinavit et fecit jn solitum modum et formam viz—

In primis renumsians quod in dicto suo testamento reliquit Marię sue filie anno quolibet quousque vixerit Florenos novem largos jn auro mutata sua voluntate ut infra voluit et declaravit quod eidem Marie debeantur dicti Floreni novem largi jn auro quosque ipse vixerit durabit vita naturalis Tomasij Marej Fantinj virj et maritj dicte Marie et non ultra et stinta vita dictj Tomasij etiam postquam vixerit ipse Domina Maria sive non huiusmodj legatus evanescat (after the death of Tomasus all the words from the "X" up to and including the word "evanescat," were cancelled and the 4th note at the head of the will should be read at this point). Et voluit quod ad solvendum dictos Florenos novem teneantur quilibet dictorum suorum heredum jn dicto testamento jstitutos pro Florenis tribus et non ultra et voluit quod dicta Maria non possit illos patere nisi a quolibet dictorum predictorum heredum prout patet et non possit illos consequi nisi super bonis cuiuslibet dictorum suorum heredum et obumatorum (this word does not appear in the dictionaries but is probably an old synonym of "successorum") in portione sive ex bonis testatoris pro parte tangenti cuilibet ex suis heredibus.

(The second page begins at this point)

Item renuntans instituissse suos heredes Lucam Johannem et Hieronimum suos filios et eis divisissse et cuilibet eorum dedisse certam portionem suorum jmmobilium prout jn testamento et jn portione Hieronimj fuisse cum domo data dicto Hieronimo unam stantiam denominatam anticucina que est jn domo data dicto Johanni. Et voluit quod Johannes teneatur facere unum andronem juxta murum dividendum domum datam dicto Johanni et domum Andree Venitianj brachiorum duorum cum dimideo cum muro fiendo de novo pro dividendo anticucinam a dicto androne et prout jn testamento latius apparet mutata sua voluntate voluit quod dicta antiquoquina restet integra dicto Johanni et quod dictus Johannes teneatur facere hostium pro intrando jn orto juxta dictum murum Andree Venitianj et non maioris latitudinis brachiorum duorum cum dimideo adeo quod hostium predictum possit capere integram viottolam dicti ortus existentis (two indecipherable words follow) semper colupna de lateribus que est supra angulo dictj viottolj prope vineam domus jn portione ortus dictj Hieronimj et residuum ortus restantis juxta dictam columnam et versus Viam Mozzam restet et sit dicto Johanni usque ad viottolam sepis que sepes cum viottola existenti juxta sepem et ortum dictj Johannis usque ad (a word indecipherable) sursum (?) eum (?) Et ad tollendum pasculum declaravit quod integra sepes predicta pro tanto quanto capeat ortus dictj Johannis et viottolus juxta dictam sepem et ortum dictj Johannis sit et veneat jn portione dictj Hieronimj.

Et loco dicte antiquoquine posuit et venire voluit unam stantiolam que est jn domo data dicto Johanni et respondit cum fenestra jn lodia dictj Hieronimj jn qua hodie sit paries cum palatio existanti supra ea et cum tetto et sit afondamentis usque ad celum. Et teneatur dictus Hieronimus facere jntraturam jn dicta stantiola jn androni domus dictj Hieronimj et introitus (a word indecipherable) intrantis jn dicta stantiola debeant renunciarij. Declarandum per hos presentes codicillos quod paries existens dimideo juxta domum datam

Hieronimo et domum datam Johanni dividet domos ipsas afundamentis usque ad celum.

Cassans anti etc. confirmans etc.

Et hans etc.

Ego Julianus Ser Dominicj de Ripa notarius florent. rogatus etc.

[*Archivio idem, Filza idem* N° 183]

4. (In margin: Revocatio testamenti)

1524 Indictione 12 et die tertio mensis junij Actum Florent. in Arte Magistrorum (Lapidum et Legna) presentibus

Cante Michaelis Cantis provisoro dicte Artis

Michaelle Pieri Cini de Lucherellis cive Florent. populi S^ci Laurentij de Florentia

Jobatiste Aloisij Antonii de Guidottis cive Florent. populi S^ci Marcj de Florentia

Tomasus Dominicj Filippi de Rinvecis cive Florent. populi S^ce Margherite de Florentia

Francisco Soldj Batiste Chappucceris cive Florent. populi dicti

Dominico olim Lari Andree Lari cive Florent. habitante in Castro Vici Vallis Else

Testibus ad infrascripta omnia proprio hore infrascripti Andree de Robbia vocatis habitis et rogatis etc.

Cum sit quod Andreas olim Marci de Robbia civis Florent. jam sunt duo anni preterite elapsi vel circha prout vidi recordari manu Ser Julianj Ser Dominici de Ripa notari Florent. vel alterius notari Florent. suum condedit testamentum in quo et pro quo in est etc prout asservit fecit et ordinavit quodam leghatum et seu voluit et alia de quibus postea dissit se multotiens penituisse et continue penitere attento notaro quod testamentum predictum de facto et absque premeditatione aliaqua condedit et ordinavit: et adeo intendens dictum testamentum et omnia in eo contenta de presente revocare ad hac ut aliud aliter et alio modo maturo consilio et consulte suo loco et tempore condere ordinare et perficere possit et valeat: qua propter dictus suprascriptus Andreas testator constitutus in presentia et in conspectu mei j. pⁱ (johannis petri) notari infrascripti testamentum suprascriptum dissit asservit et confessus fuit et dicit asserit continere testamentum predictum de quo supra per eum predictum testatorem et manu dicti Ser Juliani de Ripa seu alterius cujusque notari rogantis se iterum atque iterum sepi sepijs sepiissime penituisse et penitere fecisse et condedissee testamentum de quo supra et omnia contenta in eo; propterea et omni meliori modo quo potuit testamentum predictum et omnia in eo contenta irritavit et revocavit cassavit et annullavit et irritat revocat cassat at annullat: et pro irritato casso revocato et annullato haberi voluit et vult in omnibus per eum omnia pariter et ac si per eum factum conditum et ordinatum non esset

Rogans etc

[*Archivio idem, Rogiti di Ser Giovanpiero Borghesi, Protocolli 1519-1524, segnato Notai B 2202 c. 537.*]

RUFUS G. MATHER.

ROME, ITALY.

SAPPHO AND THE "LEUCADIAN LEAP"

ONE of the most important archaeological discoveries of recent years is that of the so-called "underground basilica" just outside the Porta Maggiore in Rome. In April, 1917, a large room was found, fifty feet beneath the Naples railroad line, with nave and side aisles of exactly the form of an early Christian basilica. It dates from the first century A.D. and was evidently a pagan place of worship.

Sufficient details have already been published¹ to make us familiar with the more important features. The present article is an attempt to explain one of the stucco reliefs with which the walls are covered. The relief in question (Fig. 1) occupies the half-dome of the semi-circular apse. It is described by Fornari (*Not. Scav.* 1918, pp. 41 ff.) but by way of explanation he merely suggests that it might represent the voyage of the soul towards the Islands of the Blessed. Cumont (*R. Arch.* 1918, pp. 65 ff.) elaborates this theory more at length. It is quite possible, as he thinks, that the relief may have had some special cult significance to the votaries who frequented the place, but it appears probable that the original intention of the artist was to represent a well-known story, namely the famous "Leucadian Leap" of Sappho in her attempt to be freed from her hopeless love for Phaon.

Let us first examine the relief in detail. On the right (Fig. 1) is a rocky cliff from the top of which steps out into space a female figure. She wears a closely fitting garment, and holds in addition in her upraised right hand one edge of a large mantle which covers the back of her head and swells out in fluttering folds. In her left hand she holds one handle of a lyre. Behind her on a higher eminence stands Eros and seems gently to assist her to make the leap. Beneath is the sea, represented realistically with agitated waves. Half emerging from the water is a Triton with

¹ *Chron. B. A.* IV, 1917, p. 41; *London Times, Lit. Suppl.* Nov. 15, 1917, p. 555 (Mrs. Strong); *Year's Work in Class. Studies*, 1917, pp. 6 ff. (Van Buren); *Not. Scav.* 1918, pp. 30 ff. (Gatti and Fornari); *R. Arch.* 1918, pp. 52 ff. (Cumont); *A.J.A.* XXII, 1918, p. 79, XXIII, 1919, pp. 82, 429.

scaly body holding in his outstretched arms a large garment, as if to break the fall. To the left amidst the waves another Triton with legs terminating in serpent coils holds in one hand an oar and in the other a trumpet on which he blows. On a rock between the two Tritons may have been some other object, but it cannot now be distinguished. High up on the left is another cliff on which stands Apollo, apparently nude, holding his bow in his lowered left hand, and some object, possibly a torch, in his extended right. On a lower level to the extreme left sits a man with the upper part of his body wrapped in a short cloak. He leans forward and rests his head pensively, or regretfully, or sadly, as the case may be, on one upraised hand.

An explanation which fits nearly every detail of this scene is found in Ovid's XVth Heroid, the letter from Sappho to Phaon.¹ Commencing at line 157, Sappho tells how she was reposing sadly beside a spring and was addressed by a Naiad as follows: (vs. 163 text of Palmer)

'quoniam non ignibus aequis

Ureris, Ambracia est terra petenda tibi.

165 *Phoebus ab excelso, quantum patet, aspicit aequor*

—Actiacum populi Leucadiumque vocant:—

Hinc se Deucalion Pyrrhae succensus amore

Misit et inlaeso corpore pressit aquas;

Nec mora, versus amor fugit lentissima mersi

170 *Pectora; Deucalion igne levatus erat.*

Hanc legem locus ille tenet. pete protinus altam

Leucada nec saxo desiluisse time!

Ut monuit, cum voce abiit; ego territa surgo,

Nec lacrimas oculi continuere mei.

175 *Ibimus, o nymphe, monstrataque saxa petemus:*

Sit procul insano victus amore timor!

Quidquid erit, melius quam nunc erit: aura, subito:

Et mea non magnum corpora pondus habent.

Tu quoque, mollis Amor, pennas suppose cadenti,

180 *Ne sim Leucadiae mortua crimen aquae!*

Inde chelyn Phoebos, communia munera, ponam,

Et sub ea versus unus et alter erunt;

¹ All of the more recent writers concur in considering this epistle to be really by Ovid in spite of the fact that it does not occur in all of the manuscripts. See Palmer and Purser, *Ovidi Heroides* (Oxford 1898), pp. 420 ff.; von Wilamowitz-Moellendorff, *Sappho und Simonides* (Berlin, 1913), p. 21, note 2.

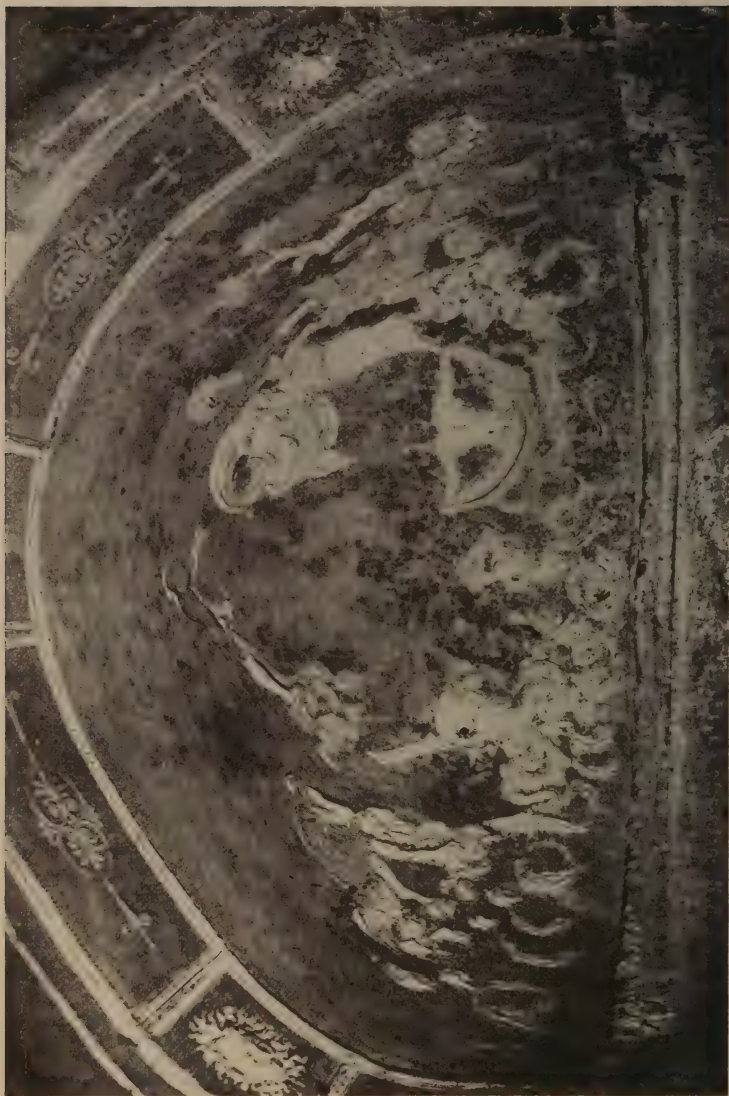


FIGURE 1.—STUCCO RELIEF IN THE "UNDERGROUND BASILICA"; ROME.

*'Grata lyram posui tibi, Pheobe, poetria Sappho:
Convenit illa mihi, convenit illa tibi!'*

With this passage in mind no further description of the relief is needed. The woman stepping from the cliff is Sappho, rep-

resented here as elsewhere¹ as holding her poet's lyre. Eros stands at her side to lend his support, and Apollo, to whom the lyre is to be dedicated, stands on the opposite height and stretches out his hand protectingly. Another kindly divinity is also introduced, the Triton holding out the robe to break the fall. To make the story complete, even an absent character is included and we see the figure of the unresponsive Phaon seated pensively at one side. Many of these details are not clear in the photograph. When one studies the original the impression of an actual leap into space is even more marked, and it seems certain that such was the intention the artist wished to convey.

For the purpose of explaining the relief there is no need to go into the question of the historical and much maligned Sappho. Doubtless those who have extolled her virtues in recent years² are quite right in their statements. At the time of Ovid, however, the story as given above was in vogue, in fact it was common property among writers for several centuries before his time. Strabo³ is our authority for the fact that Menander followed the same tradition, in fact he states that according to Menander, Sappho was the first to take the leap. Turpilus in his *Leucadia* probably followed closely the story as told by Menander, although the few remaining fragments⁴ reveal only faintly the background of the myth as given by Ovid. The original source for these writers was a story which was treated both in Alexandrian literature and in the New Comedy. For our purpose it is enough to know that at the time when the relief was executed the story of Sappho, as given by Ovid, was well known.

For our purpose also it is not necessary to seek out the history of the famous "Leucadian Leap." The Leucadian Cliff is a steep limestone rock situated on the end of Cape Doukato, a promontory five miles long at the south-west end of the island of Leucas. Here still remain traces of a once important temple of Apollo,

¹ Comparetti, 'Saffo nelle antiche rappresentanze vascolari,' *Museo Italiano di Ant. Class.* II, 1888, pp. 40 ff.

² H. T. Wharton, *Sappho* (London-Chicago 1908); von Wilamowitz-Moellendorf, *Sappho und Simonides* (Berlin 1913); William K. Prentice, *Class. Phil.* 1918, pp. 347 ff.

³ Strabo, X, ii, 9; Koek, *Comicorum Atticorum Fragmenta*, III, p. 89.

⁴ Ribbeck, *Comicorum Romanorum Fragmenta*, 2nd ed., pp. 97 ff. In one fragment of Turpilus (Ribbeck, p. 100) there is a reference to Neptune as well as Apollo. Had we the entire comedy before us it might be possible to trace through this a reason for the presence of the Tritons in the relief.

and here in early times was performed¹ an expiatory rite in honor of the god in which a criminal was covered with feathers in an attempt to break his fall, and was then thrown from the cliff. In the course of time arose the superstition that if anyone tormented by love should hurl himself from the cliff, he would find relief from his woes without necessarily losing his life in the adventure. This belief may have been derived in some way from the earlier religious rite, or it may have been an independent superstition, but at any rate at the time of the execution of our relief it was commonly accepted, and may well have furnished a subject for an artist of the time.²

In early art, representations of either Sappho or Phaon are rare and generally limited to isolated figures of one or the other.³ Nothing to parallel the present scene has been found, a fact which furnishes additional proof that the story as here depicted is a late development.

An additional confirmation of our interpretation of the relief is found on a coin of Trajan from Nicopolis, published first by Friedländer.⁴ As pointed out later by Imhoof-Blumer⁵ the representation of the coin on plate 23 of Friedländer's publication is inaccurate. What one really finds is a figure of Apollo standing erect in exactly the attitude of the "basilica" relief, with the right hand outstretched holding a torch, and with the left hand at his side holding the bow. Of still more importance is the inscription: 'Απόλλων Λευκάτης. Both the coin and the relief evidently have reference to the cult statue of Apollo in the temple on the cliff of Leucas, and the localizing of the scene represented on the relief leaves no doubt concerning the subject to which it refers.

C. DENSMORE CURTIS.

AMERICAN ACADEMY,
ROME, ITALY.

¹ See Frazer, *The Scapegoat* (London 1913), p. 254; A. B. Cook, *Zeus*, I, pp. 344 ff.

² Hephaestion (Ptol. Hephaest. *ap.* Phot. *Bibl.* cod. 190, p. 153, ed. Im. Bekker) gives a list of some who took the leap but does not include the name of Sappho. Margaret Heinemann (*Landschaftliche Elemente in der griech. Kunst*, pp. 48 f.) thinks a painting in the *Tomba della caccia e pesca* at Corneto (*Mon. Inst.* XII, pl. 14 a; Dennis, I, p. 311) a representation of this leap. Dennis (*loc. cit.*) and von Wilamowitz (*Sappho und Simonides*, p. 26, note 1) describe the painting correctly as a simple representation of bathing and diving.

³ Comparetti, *op. cit.*; Roscher, *Lex. s. v.* 'Phaon.'

⁴ *Arch. Zeit.* 1869, p. 103, pl. 23, No. 21.

⁵ Imhoof-Blumer, *Monnaies Grecques*, p. 141.

THE MEDIAEVAL HISTORY OF THE DOUBLE-AXE MOTIF

THE double-headed axe is so ancient and well known a motif in ornament that it scarcely requires description or explanation in its original form. About the beginning of the Christian era, however, it begins to take on elaborated forms which gradually evolve a pattern whose further evolution can be traced uninterruptedly into the thirteenth century. This evolution it is the purpose of my paper to trace.

I. MOSAICS

It is quite apparent, from the advanced form of the double-axe in our first example (Fig. 1), a mosaic of Salzburg of the early first century A.D., that the motif has a long history behind it, leading back perhaps to lotiform patterns in Egyptian ornament, which it is not in the province of this paper to trace. The significant feature of the Salzburg mosaic, in view of the later development of the double-axe, is the isolation of the motif, but we also note that the concave sides of the axe are filled with design, so that they give the effect of half-axes placed in a perpendicular sense to the principal double-axe head.

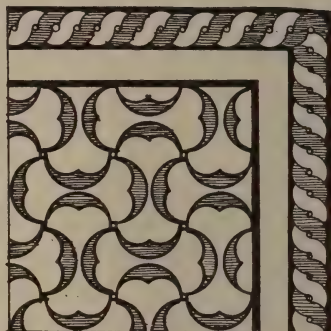
This handling of course suggests an all-over pattern, and we have in fact such an application of the motif in a beautiful mosaic pavement in the Baths on the Cladeos at Olympia (Fig. 1), dating in the time of Nero. It may be noted that the small arrow-like points which were used in the Salzburg mosaic are lacking in the Olympia example.

The greater flexibility of the pattern thus afforded by the complementary treatment of the concave sides is also shown by an example of the second century found in a mosaic of the Baths of Pompeianus at Oued-Athmenia in Numidia.¹ The isolated motif of Salzburg is now strung out in a continuous border which is capable of turning the numerous corners required by the design

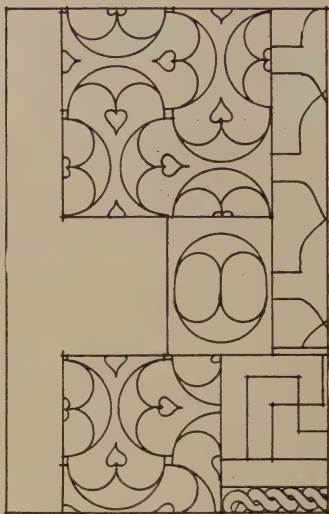
¹ Daremberg and Saglio, *Dict. des Ant. grecques et romaines*, VI, fig. 5246.



MOSAIC FROM SALZBURG



MOSAIC FROM BATHS ON THE KLADEOS



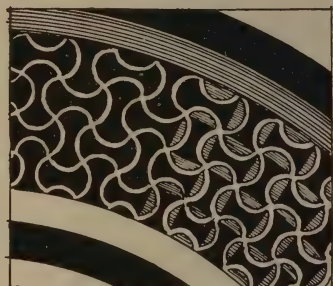
MOSAIC FROM RUSGUNÆ



GOSPEL OF GODESSCALC



GOSPEL OF CHARLEMAGNE



SOISSONS GOSPEL.

FIGURE 1.—THE DOUBLE-AXE ORNAMENT IN MOSAICS AND ILLUMINATIONS.

by reason of the perpendicular axis already established in the decoration of the concave faces. The all-over pattern of Olympia, again, reappears in a third-century Roman mosaic at Puig

de Cebolla in Spain,¹ but here the decline of naturalistic ornament is striking, for the motif is handled in a hard and geometric manner, and all understanding of the original form is lost. It is only by comparison with the example from Olympia that we can discover the connection of the Spanish pattern with the original double-axe.

There has been found in Africa, at ancient Rusguniae near Algiers, a well-preserved mosaic, dated through epigraphical peculiarities about 400 A.D., which again affords a fine example of our motif (Fig.

1). The double-axe is here used in a border that varies slightly in width, but the facility of the handling gives one an impression of consistency in spite of this, as well as a feeling that the mosaicists were beginning to canvass the possibility of laying out the design in squares in order to simplify its execution. Proof of this is afforded directly by an important example



FIGURE 2.—MOSAIC AT SORDE.

at Sorde in the southwestern corner of France (Fig. 2). The design of this mosaic is in fact laid out in squares which govern the application of the pattern; the motif carries with it the souvenir of its early form in the arrow-points or tiny ivy-leaves which decorated the lateral concavities in our first example at Salzburg, but their meaning has now been lost in a mere space-filling design. The mosaic aroused some discussion at the French *Congrès Archéo-*

¹ L. Puig y Cadafalch, *L'Arquitectura romànica a Catalunya*, I, fig. 285.

logique of 1888, and produced a division of opinion, some maintaining that the pavement was Gallo-Roman while others assigned it to the twelfth century. The earlier date is indicated with certainty by the appearance of the arrow-points or leaves which in the later history of the motif are reduced to mere dots, usually three in number, and the question has recently been decided in favor of the Gallo-Roman date by the discovery of substantially the same pattern as that of the Sorde mosaic in a fourth century pavement of St. Sophia at Sofia in Bulgaria.¹

These examples by no means exhaust the list of specimens found in Roman art, early and late, but the others² all show the original isolation of the motif and are thus not related to the development of the motif which started with its use as an all-over pattern. Like most of the threads that bind antiquity to the Middle Ages, this one also is interrupted by the "dark ages," and we find that the history of the motif in recognizable form must be resumed in the Carolingian period. But one monument shows that the pattern was not forgotten even in that barest of centuries as regards artistic creation,—the seventh. In the pediment of the ancient structure which now forms the transepts of the Baptistery of Saint-Jean at Poitiers³ we find the double-axe used as a frieze, placed there in the reconstruction of the seventh century when the walls of the baptistery were raised. The peculiarity of this example resides in the fact that the squares which we saw at Sorde are here all turned in the same sense, so that we really lose the last connection with the original double-axe of the isolated variety; the Merovingian decorator did not understand the origin of the pattern and made merely a geometrical copy of the lateral half-axes. The connection with Gallo-Roman examples like that of Sorde is indicated by the carefully cut notches which correspond to the concavities of the under side of the axe-heads in the mosaic.

II. ILLUMINATED MANUSCRIPTS

We resume the tracing of the history of our pattern at the end of the eighth century with its use in the Gospels of Godescalc, and

¹ *Jb. Arch. I.* 1912, p. 562, fig. 3.

² *Baudenkmäler von Olympia*, II, pl. CX; *Antike Denkmäler*, I, pl. 47; *L'Architecture romànica a Catalunya*, I, figs. 281, 286, 342; Riegl, *Spätromische Kunstindustrie*, pl. XV, 6.

³ De la Mauvinière, *Poitiers et Angoulême*, p. 12.

it is a noteworthy fact that for the next three centuries it seems to be found in manuscripts alone. The ivory-workers never use it, and no examples may be found in gold-work, nor in the scanty remains of architectural ornament which have been left us by the Carolingian and Ottonian epochs. But starting with the use of the motif by Godescalc we enter upon an evolution that is continuous and consistent in the decoration of manuscripts until the motif emerges in the architectural sculpture of the Romanesque schools.

The Gospels written by Godescalc (Paris, Bibliothèque Nationale, *nouv. acq. lat.* 1203) are dated by Leprieur¹ shortly after 781. The manuscript is the earliest one of certain date which can be assigned to what is called the "Ada-group," the name being derived from a putative sister of Charlemagne for whom one of the manuscripts in the group was written and illuminated. Godescalc knew our motif and uses it (Fig. 1) in a way much more reminiscent of the late mosaics than is the frieze of Saint-Jean-de-Poitiers. The notches which the Merovingian decorator employed are lacking and their place is taken by shading. But the squares are turned, as in the mosaic of Sorde, in two senses and the arrow-points or ivy-leaves of the original design are indicated by three small dots. These dots are a persistent characteristic of the motif in illumination, continuing, with variation in number, down to the twelfth century.

The next example to be found in the Ada-group occurs in the Psalter of Charlemagne² which Leprieur dates between 772 and 795. The motif is here much the same as in the Godescalc Gospels, but the axe-heads are outlined with a light contour which gives to the design a flowing continuity akin to that of the Olympia mosaic and absent in the pattern used by Godescalc, which is too emphatically squared. Another example is found in the Gospels of Saint-Denis of the same group,³ a manuscript which is to be dated at the end of the eighth century according to Leprieur and Boinet, but is a work of somewhat cruder execution than either of the two preceding works. This inferiority is also displayed in the use of the double-axe ornament, which, though it retains the light contour of Charlemagne's Psalter, shows such hopeless disconnection as to lose all effect of a flowing pattern.

¹ In Michel, *Hist. de l'Art chrét.* I, 1, p. 337.

² Vienna, Imperial Library, 1861; Boinet, *La Miniature carolingienne*, pl. VI.

³ Paris, Bibl. Nat., *MSS. lat.* 9387; Boinet, *op. cit.* pl. V.

In the Gospels of Charlemagne (an Ada-group manuscript in the library at Abbeville), dated by Leprieur¹ and Boinet between 790 and 814, we have for the first time in illumination the use of the motif as a veritable all-over pattern (Fig. 1). From now on it would be more closely descriptive to call the motif the "pin-wheel,"—a name which has for some time been given to the ornament by students of illumination at Princeton,—because it is so handled that from any intersection-point of the design four axe-heads radiate in pin-wheel fashion. The sense of squareness is beginning to be lost in the flow of a continuous pattern.

The continuous handling is even more apparent in the Gospels of Soissons (Ada-group, Paris, Bibl. Nat., *MSS. lat.* 8850), dated by Leprieur and Boinet about 820 (Fig. 1). Here not only the outline of the axe-heads serves to accentuate the flow of the pattern by their continuous treatment, but the axe-heads themselves are made so slender as to give the impression of ribbons. The Gospels of Lorsch,² on the other hand, are an excellent illustration of the "throw-backs" which the student so often finds in illumination because of the frequent wholesale copying, on the part of a later scribe, of the decoration as well as the text of the earlier manuscript which serves him as model. This manuscript of the middle of the ninth century gives us two examples of the "pin-wheel," one in the inner border of the "Christ in Majesty" and the other in that of the title-page of Matthew. The outside borders of both pages are identical with that of the Matthew-portrait in the Gospels of Soissons, and it is not surprising therefore to find a striking similarity between the "pin-wheel" in the inner border of the "Majesty" and that used in the border of the Matthew-portrait of the Soissons Gospels. On the other hand, the "pin-wheels" of the Matthew title-page in the Lorsch Gospels resemble more closely the motif as we have it in the Psalter of Charlemagne, cited above, and other characteristics of the page show a similar affinity. The Gospels of Lorsch in this, as in many other respects, appear rather as an eclectic summary of the style of the Ada-group of manuscripts than as a step forward in the evolution of our motif.

¹ In Michel: *Hist. de l'Art chrét.*, I, 1, p. 337.

² Gyulafehérvár in Hungary, Batthyány library; Boinet, *op. cit.* pls. XV, XVI. Another "Ada" example of the motif, so poorly reproduced (Dobsschütz, *Textkritik der Vulgata*) that I hesitate to classify it, is to be found in the *Codex Ingolstadiensis* (Munich, Bibl. Acad. MS. 29).

Midway between these two types found in the Gospels of Lorsch is an example provided by the Gospels of Bishop Anno of Friesing in South Bavaria (854–875). The double-axe is here (Fig. 3) used for the first time in an all-around border. It is handled with considerable facility for, in spite of turning corners and perhaps the greater difficulty of being confined to two rows of double-axes instead of three, the continuity of the design is pretty well maintained, chiefly through the accentuated outline. It is instructive to compare this example with that of the Passau Gospels, three centuries later (Fig. 5).

Our next example is of value as showing how the motif may serve to indicate the date of a manuscript. It is taken from the Psalter of Corbie,¹ a manuscript dated by Boinet in the early ninth century. This date would appear strange to any student of illumination in view of the high development reached by the figured initial, and certainly it would not be suggested by the form of the "pin-wheel" here used. The handling is crude, but shows two characteristics which point to a date at least a century later than that given the manuscript by Boinet. The first consists of the considerable margin which is allowed to separate the tips of the axe-heads, as is the case only in late examples. In the second place the white contour which we have seen in several earlier examples is here produced by drawn lines; in other words the color handling is giving way to a linear technique which, as we shall see, is a sign of decadence.

From the Ada-group, the "pin-wheel" passes on to the Rhenish school of the Ottonian period which is nowadays somewhat loosely called the "school of Reichenau." A fine example is found in an early manuscript of the school, the Heidelberg Sacra-

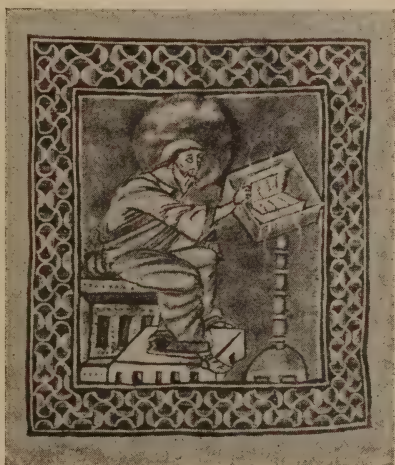


FIGURE 3.—ILLUMINATION FROM THE GOSPELS OF ANNO OF FREISING.

¹ Amiens, Bibl. de la Ville, 18; Boinet, *op. cit.* pl. CXLVIII.

mentary (Heidelberg, University Library, Sal. IXb), dated by Janitschek and by Herbert toward the end of the tenth century. The symptom of decadence noted above in the separation of the points of the axe-heads is here apparent (Fig. 4), but the development of the motif is shown in its freer use as an all-over pattern, in which respect it affords the best example to be found in illumination. Rhenish influence on Belgian work is shown by the close affinity between the form of the pin-wheel in the Sacramentary



FIGURE 4.—MINIATURE FROM THE HEIDELBERG SACRAMENTARY.

and in a Belgian manuscript in the Bibliothèque Nationale.¹ The only difference between the two designs lies in the somewhat greater distance left between the tips of the axes, and in the use of but one dot instead of the usual three as a space-filler.

A Rhenish manuscript dated by Vöge about the year 1000, the Aachen "Otto-manuscript,"²

affords evidence of the decline which is fast coming upon our motif in illumination. In one of the canon-pages we see the tendency to thin the axe-heads to a point at which they almost become ribbons, and all the examples of the use of the "pin-wheel" in this manuscript show a pronounced emphasis given to the longitudinal axis. This in time leads to the deterioration of the motif from an all-over pattern to what is practically a series of parallels. This last phase is represented by the

¹ The Sacramentary of Paris, Bibl. Nat., MSS. lat. 819; photograph in Princeton Art Museum.

² Beissel: *Die Bilder der Handschrift des Kaisers Otto*, pls. I, XX, XXV. XXVI.

border of the Luke-portrait in the Passau Gospels (Fig. 5) in Munich, dated by Swarzenski about 1150.¹ The example should be compared with the "pin-wheel" of the Gospels of Anno of Freising noted above (Fig. 3). The use of the motif is identical and it is altogether probable that the later manuscript borrowed its border, if not directly from the Bavarian manuscript, at least



FIGURE 5.—ILLUMINATION FROM THE PASSAU GOSPELS: MUNICH.

from an intermediate copy. But the lapse of three centuries is reflected in the tell-tale lengthening of the major axis in the Passau Gospels, a lengthening which has been carried to such an

¹The motif occurs in a dated Hildesheim manuscript of 1011 (Domschatz, No. 33), where the beginning of the isolated treatment of the Passau manuscript is indicated by a breaking down of the all-over pattern and the introduction of a sort of rectangular cabochon in alternate squares. The edges of the axe-heads are but slightly separated, which shows an earlier stage than the example in the Passau gospel. See Josten, *Neue Studien zur Evangelienhandschrift no. 18 im Domschatze zu Hildesheim*, pl. V, A.

extent that turning the corners becomes a difficult task for the illuminator.

The Passau manuscript represents the continuation of the old Reichenau school in German illumination, and thus by right inherits the use of the "pin-wheel" from the older group. Other German manuscripts of the twelfth century also offer examples of

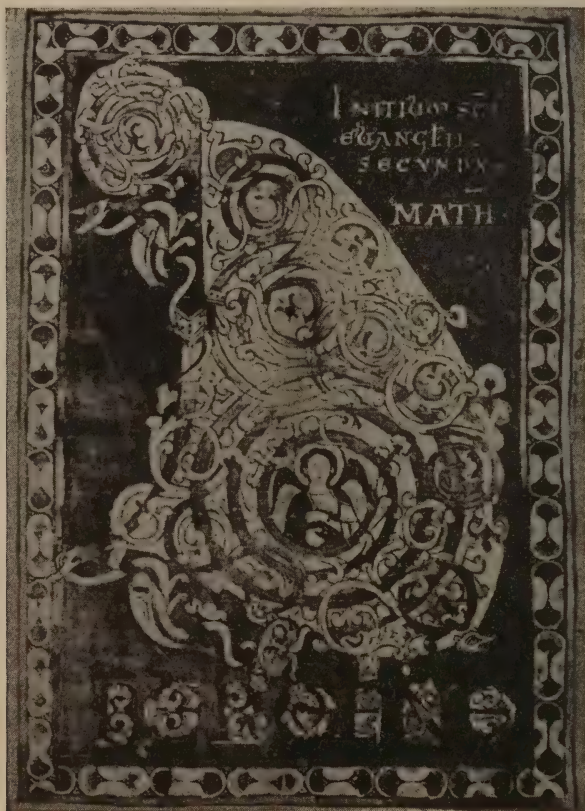


FIGURE 6.—ILLUMINATION IN A MANUSCRIPT OF THE XII CENTURY: TRÈVES.

it, notably one in the treasury of Trèves cathedral (Fig. 6), where we find the motif reduced to a single line of double-axes, as we might expect from the parallelizing tendency above noted. This specimen may be said to close the cycle we have followed, beginning with the Salzburg mosaic of the first century and ending thus in the Romanesque illumination of Germany in the

twelfth. The pattern occurs again in the Perikopenbuch of St. Erentrud at Munich (c. 1150),¹ but in so degenerate a form that the double-axe motif may be said to have vanished.

Two examples of the use of the motif in wall-painting may be briefly cited here. One is probably of the early twelfth century; it is to be found in Catalunya, in the church of Sta. Maria de Bohí.² The pattern here is distinctly squared, and there is no particular scheme to the coloring; the lack of the contour, which was a prevalent characteristic of the motif in illumination, links this Spanish example more closely with the architectural type to be considered shortly than with the manuscripts.

This is less true of the other fresco, at Knechtsteden on the Rhine.³ The motif appears both on the soffit of the triumphal arch of the local church, and in a border at the base of the drum of the apse. The pattern in the former case is a very stiff and geometric rendering of the all-over pattern with the outlined contour common to the examples we have found in the manuscripts. The border of the design in the apse is a very late and decadent form, closely resembling the motif in the Perikopenbuch of St. Erentrud. The church is dated in the twelfth century.

III. ARCHITECTURAL SCULPTURE

A. IN ITALY

The double-axe or "pin-wheel" appears in architectural sculpture in Italy as early as the opening years of the twelfth century, some years before it makes its appearance in France. Guglielmus, so far as we know, was the first sculptor to use the motif, and it appears five times in Modena cathedral on which Guglielmus was working *ca.* 1100. In one of these cases it is used as a torus moulding, a most natural translation into stone of painted borders such as we find in the Heidelberg Sacramentary. This torus is one of the archivolt mouldings of the central western portal of the cathedral,⁴ and the motif is so well handled in this example that one wonders if Guglielmus, or his assistant, did not draw from some earlier sculptured example. The other four specimens at Modena are unique in that the motif is used in each

¹ Swarzenski: *Salzburger Malerei*, pls. L, LVIII.

² *Pintures Murals Catalanes*, publ. by the Institut d'Estudis Catalans, III, pl. XVII.

³ Clemen: *Kunstdenkmäler der Rheinprovinz*, III, 3, figs. 24, 25, and pl. 1.

⁴ Martin: *L'Art roman en Italie*, I, pl. 46, 3.

case to represent water. On the lintel of the right portal of the west façade (Fig. 7) we find a representation of Noah, sailing along in the Ark upon a flood of double-axes. It must be admitted that the rendition of the water is not so bad as one might expect, owing to the Italian method of carving the motif, which differs greatly from that used in France. The French carver made the axe-head into a flap (Fig. 11), while the Italians obtained a peculiar effect by raising the cutting edge of the axe,

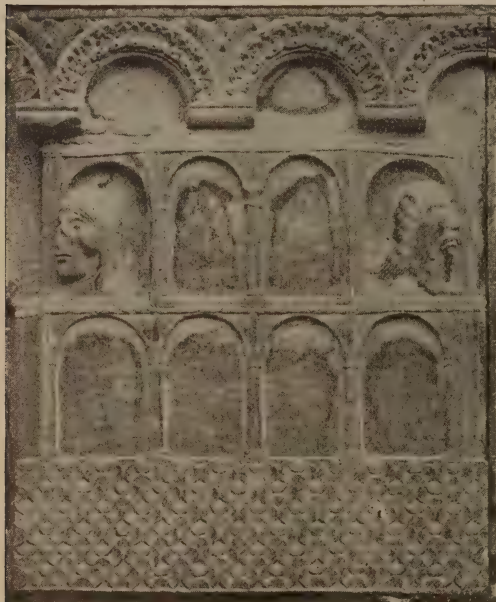


FIGURE 7.—RELIEF OF NOAH BY NICOLÒ:
CATHEDRAL, MODENA.

so to speak, in relief, and by incising the thinner necking, so that each double-axe appears to be pushed inward at its centre. The companion piece to the relief just mentioned, viz., the lintel of the left doorway, presents among other scenes the Creation of Eve.¹ Adam is here depicted asleep beside a pool whose water is again indicated by the double-axe pattern. The other two scenes in which this use of the motif appears occur on the lintel of the south

doorway and on the archivolt of the north portal.² In the latter case the sculptor apparently became confused in his rendition of the design, and the double-axe drifts off into another pattern.

San Silvestro at Nonantola, erected a few years after Modena and close to it in style, displays the motif on one of the archivolt mouldings of the western portal.³ In the cathedrals of Ferrara and Piacenza, the sculptures in which the double-axe appears are

¹ Martin, *op. cit.* pl. 45, 3.

² Martin, *op. cit.* pl. 47, 2, 1.

³ Porter, *Lombard Architecture*, pl. 155, 5.

supposed to be by Guglielmus' pupil Nicolò, and certainly all these cathedrals show a close community of style. At Ferrara, built about 1135, we have two portals with torus mouldings carved with our motif, namely the central portal, and the southern portal of the west façade.¹ The use of the double-axe in the latter case is remarkable in that the blades are further decorated with a bold though simple floral design. Piacenza has the usual sculptured torus over the right portal,² and the double-axe here, as in the other Italian examples throughout two centuries, shows an extraordinary adherence to the first form of the motif as used by Guglielmus.

In the basilica of Pomposa we find a double-axe capital among several bits of sculpture bearing the characteristics of the school of Antellami. The similarity of all the Italian examples of the motif makes it difficult to date this capital with accuracy, but a date about 1170 would fit the group of sculptures to which it belongs and would not be improbable for the capital itself.³ The basilica church of Traù in Dalmatia⁴ affords another example of the motif in a pilaster capital behind the pulpit. It requires no special notice, exhibiting as it does the usual features of the motif as used in Italy. A

more interesting example is to be found in the ambo of the church of Sta. Maria in Carpi (Fig. 8), which is dated by Porter in 1184. The figure of a dead saint is here represented in rather low relief upon a background of double axes done in the usual Italian way.

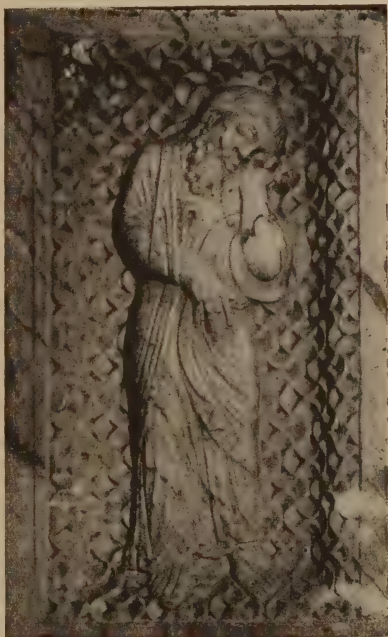


FIGURE 8.—PROPHET IN THE SAGRA:
CARPI.

¹ Martin, *op. cit.* pls. 71, 74.

² Martin, *op. cit.* pl. 31.

³ Errard, *L'Art byzantin*, III, pl. XI.

⁴ Kowalczyk, *Denkmäler der Kunst in Dalmatien*, pl. 105.

Still another example of the motif in Italy may be mentioned, namely the transenna found at S. Agnese at Rome¹ which is decorated with an all-over double-axe pattern. Venturi and Jubarù both date the balustrade in the fourth century, but analysis of the archaeological evidence which induced Armellini, the first to publish the transenna, to assign it to this early

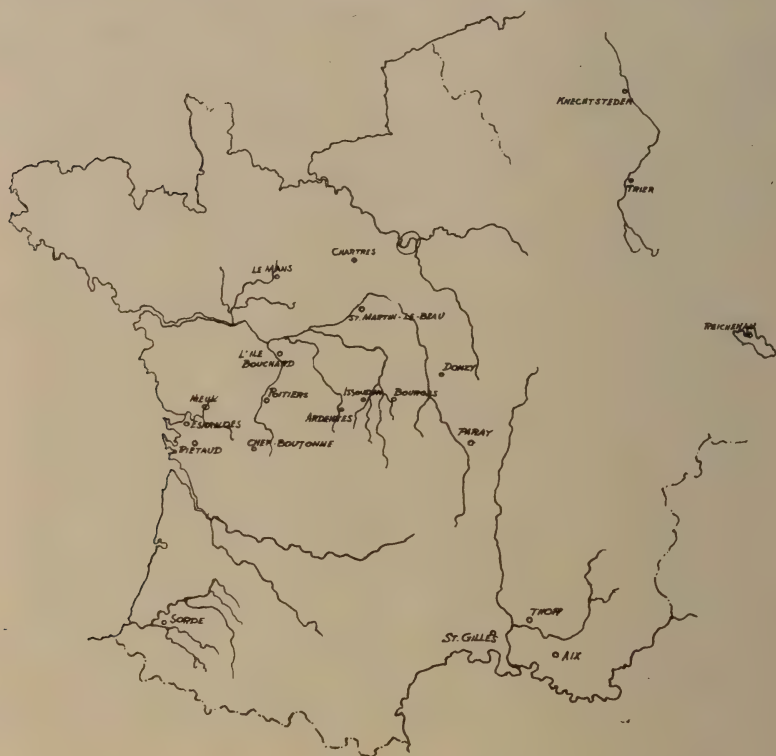


FIGURE 9.—MAP SHOWING THE DISTRIBUTION OF THE DOUBLE-AXE MOTIF.

period, shows that his conclusion was based on the slenderest of data. In view of what appears to me to be a very uncertain date, I have not tried to give this example its place in the evolution of the motif.

B. IN FRANCE

Our examples in France are much more diversified than those of Italy, where we have noted a facility and understanding in the

¹ Jubarù, *Sainte-Agnès*, p. 320, fig. 35.

early handling of the motif which suggests antecedents that we have lost, however certain it may be that the ultimate source from which Guglielmus drew the design was the illumination of manuscripts. This very skill of the early work inhibited any marked advance in the case of the Italian use of the double-axe. In France on the other hand the examples differ widely and it is difficult to trace a development, although it will be noticed (see map, Fig. 9) that the majority of the monuments which show the motif are to be found in the valley of the Loire. The order in which they are here presented is an arbitrary one which parallels the evolution already traced in the case of the illuminated manuscripts, but it will be found that this sequence does not conflict with such dates as can be determined with certainty.

At Aix, a colonnette in the cloister of the cathedral is covered with the "pin-wheel" design (Fig. 10). The carving is crude, with a tendency toward lop-sidedness at the top of the colonnette. The spaces between the flaps which distinguish French from Italian "pin-wheels" are here filled with many dots, a characteristic reminiscent of the manuscripts and not found in Italy.

The primitive character of the work, and the fact that only one colonnette is thus decorated indicate that this was an experiment which apparently was not regarded as successful. The crudity of the design accords with the date at the end of the



FIGURE 10.—COLUMN FROM THE CATHEDRAL CLOISTERS: AIX.

eleventh century which Revoil¹ and Lasteyrie² imply for the building of the cloister.

At Donzy, in the church of Notre-Dame-du-Pré, we find a torus of the archivolt of the west portal bearing a very good rendition of the "pin-wheel" motif.³ So great is the advance over the example of Aix that we should be inclined to date this example fully half a century later. The design is rendered in a splendid all-over pattern, with the lips of the flaps practically meeting. The dots in this instance are three in number.

The church of Saint-Martin-le-Beau⁴ has an archivolt moulding similar in most respects to that at Donzy. The two points of difference are that at Saint-Martin-le-Beau there are only single dots, and the flaps of the "pin-wheels" are decorated with a series of gouged concentric arcs which increase the flow of the design, approaching the ribbon handling which we have noted in the later manuscripts, and which reappears in its highest development at Saint-Gilles.

On the south portal of Bourges (Fig. 11) we find an example that looks like a developed Aix "pin-wheel." The lips do not meet and there are no dots, but otherwise there is great similarity between the two designs. There is also a small colonnette by the south door of Bourges containing the pattern, but this is rather more in the style of Donzy in omitting the several lines on the flaps. The sculptures of the south portal at Bourges are dated about 1160. At Paray⁵ there is an example much like that of Bourges, but the lips of the flaps are slightly further apart.

Somewhat earlier than the south portal of Bourges is the corresponding door of Le Mans.⁶ Here a colonnette shows the design in a form like that of the archivolt of Saint-Martin-le-Beau, with single dots, but with the lips slightly further apart. The "pin-wheel" effect is very strong in this example because of the thinning of the flaps and the accentuation of the points of intersection. This attenuation of the flaps is found in even greater degree at Chartres in the central portal of the west façade.⁷ The

¹ Revoil, *Arch. du Midi de la France*, II, p. 5.

² Lasteyrie, *L'Architecture religieuse en France à l'époque romane*, p. 411.

³ Lasteyrie, *op. cit.* p. 581.

⁴ Photograph, Princeton Art Museum; Baum, *Romanesque Architecture in France*, p. 142.

⁵ Dehio and Bezold, *Kirchliche Baukunst des Abendlandes*, III, pl. 299, 4.

⁶ Photograph, Princeton Art Museum.

⁷ Photograph, Princeton Art Museum.

single dots that here occur are done in relief instead of with the usual incision. A combination of the styles found at Chartres and at Donzy is seen in the small church at Semur-en-Brionnais.¹

Another example, with no features of especial note, is to be found in Notre-Dame at Issoudun.²

At Rétaud,³ which is dated *ca.* 1170, we find that the thinning of the flaps has advanced to such a point that even the "pin-wheel" seems to vanish, and the design, especially when seen from some distance, looks more like a network of fluttering ribbons. The most ribbon-like of all our examples is on a fascia moulding that runs along the paratid just south of the central portal on the west façade of Saint-Gilles.⁴ There is strong resemblance between the sculptured work here and

¹ Lasteyrie, *op. cit.* p. 588.

² *Congrès Archéologique de France*, 1873, p. 686.

³ Photograph, Princeton Art Museum. For the date, see Dangibeaud, *Bull. Arch.* 1910, p. 45.

⁴ Photograph, Princeton Art Museum.

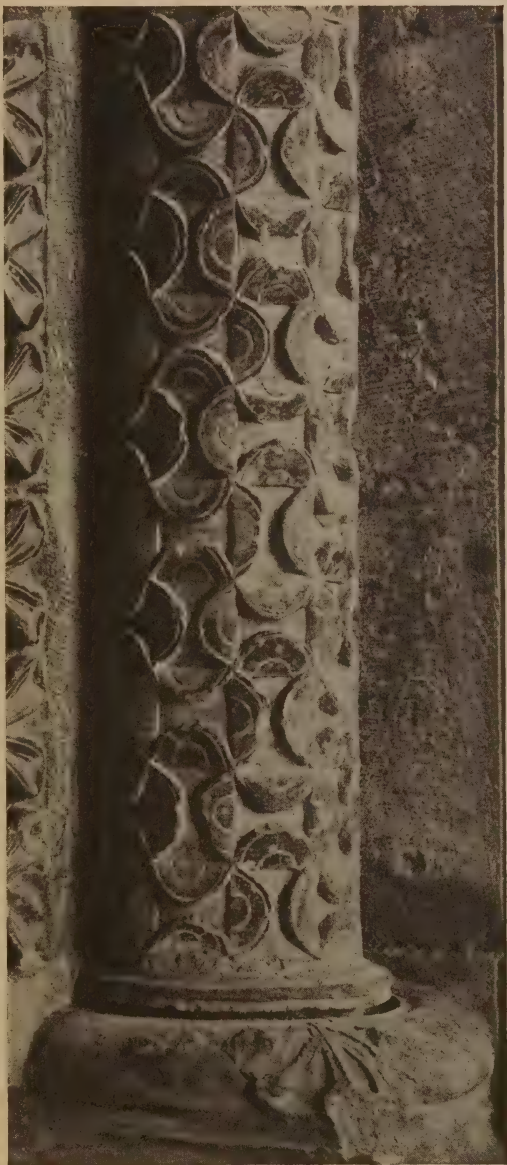


FIGURE 11.—COLUMN OF NORTH PORTAL: BOURGES.

the "pin-wheel" decoration of the Aachen Otto-manuscript. It is an interesting coincidence that this ribbon-like style should be found at Saint-Gilles, one of the latest of the French Romanesque examples in sculpture (dating from 1179 according to Lasteyrie), while the ribbon treatment of the Aachen manuscript affords us our last example of the all-over pattern among the manuscripts. After these two, the accentuation of the longitudinal axis leads in both cases to the reversion of the design toward a single row of double-axes. This was found to be true in the Trèves manu-

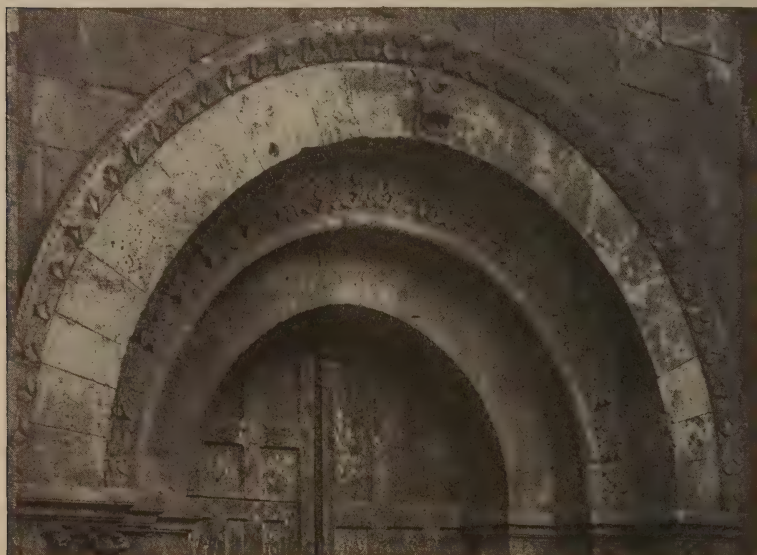


FIGURE 12.—NORTH PORTAL OF CHURCH: ARDENTES.

script (Fig. 6), and we find it true again in our next French example in stone, on the archivolt of the north side door of the church at Ardentes (Fig. 12), which curiously enough strongly resembles the Trèves manuscript in the style of its double-axe design.

The little church of Saint-Gilles at Ile-Bouchard has unfinished double-axes on the archivolt of the north side door, but they were undoubtedly meant to be completed like those on the caps of the choir pilasters of the church of Saint-Lazare in the same town.¹ The finished examples are real double-axes which no longer have the flaps peculiar to nearly all the French work.

¹ Photograph, Princeton Art Museum.

There remain to be mentioned four further examples of the double-axe or "pin-wheel" in the architectural sculpture of France. The first is found upon a pilaster cap to the south of the main portal of the church of Chef-Boutonne, which is decorated with a series of the flapped double-axes set parallel instead of end-to-end, and separated by vertical beads.¹ It is the only instance that I have found of this peculiar use of the motif. At Esnandes,² the lower wall of a blind arcade is covered with an all-over double-axe pattern. The work must be late, however, in view of the use of the pointed arch, and as it is done in the Italian rather than the French technique, it may well be assigned to some sculptor of the thirteenth century, either Italian, or a native acquainted with Italian methods and designs. A similar example seems to be found in the decoration of a pilaster in the choir of the church at Thor.³ Judging from the drawing of the design which is the only reproduction available, the characteristic French flaps are omitted.

Our last example in France of the sculptured "pin-wheel" is found upon the stole of one of the figures which occupy the embrasures of the side doors of the south portal of Chartres, and are dated in the middle of the thirteenth century.⁴ This example shows again the carefully squared design which we associate with the Carolingian phase of the motif, which may indicate that the realism with which the designs on the vestments of these figures are executed is due to the imitation of actual vestments of an earlier period. But the delicate leaves which here decorate the the axe-heads are reminiscent of those found at Ferrara.

The motif passed from the architectural sculpture of the Loire basin into the wall-painting of the same region. The priority of the sculptors may be seen from the greater variety which they impart to the motif, while the fresco-painters of the twelfth century use but one form, imitated from such examples as that of Bourges (Fig. 11), in which the flaps are decorated with concentric arcs. The earliest example of the French use of the motif in fresco may be that offered by Saint-Savin in Poitou, but here again the "pin-wheel" seems to be the deciding argument in a question of date. Merimée⁵ left open the date of the Romanesque

¹ Photograph, Princeton Art Museum.

² Photograph, Princeton Art Museum.

³ *Congrès Arch de France*, 1909, p. 287.

⁴ Didron, *Annales archéologiques*, VII, p. 150, no. 5.

⁵ *Peintures de l'Église de Saint-Savin*, p. 54.

frescoes of Saint-Savin, allowing a range from 1050 to 1150. E. Mâle¹ inclines to limit Merimée's date to the end of the eleventh century. Lasteyrie² does not believe them to be so ancient, and thinks that certain of the compositions belong to an "advanced epoch of the twelfth century." The appearance in the frescoes of the "pin-wheel" in the form used by the sculptors would indicate a date as late as the middle of the century. The other examples in frescoes of the twelfth century³ are all found in the Loire basin, save two toward the century's end in Burgundy and Savoy. The concentric arcs, which mark the derivation of the motif from the sculptured examples, disappear in the thirteenth century.

This completes the evolution of the double-axe motif in the Middle Ages. I have cited all the examples which I have been able to gather together and hope that the material thus presented may be useful to the student of Mediaeval Art. Other examples of the motif no doubt exist, but I think that if such turn up, they will hardly do more than modify very slightly the course of development as outlined. At any rate the study of the foregoing examples shows that throughout the Middle Ages the evolution of the motif was consistent and its extension circumscribed to an extent that can rarely be paralleled in the history of ornament.

ROBERT B. O'CONNOR.

PRINCETON UNIVERSITY.

¹In Michel, *Hist. de l'Art chrét.* I, 2, p. 758.

²*Op. cit.* p. 550.

³French examples of the motif in wall-paintings:

1. Saint-Savin (Vienne); XII (?) century. Didot et Lafillée, *Peinture décorative en France*, ch. I, pl. I.
2. Montoire (Loire-et-Cher); XII century. *Op. cit.* pl. V, 7.
3. Poncé (Sarthe); XII century. *Op. cit.* ch. VI.
4. Saint-Desiré (Allier); XII century. *Op. cit.* ch. VIII, pl. VIII, 10.
5. Saint-Martin de Laval (Mayenne); XII century. *Op. cit.* ch. VIII.
6. Sainte-Chef (Isère); end of XII century. *Op. cit.* pl. IX, 1.
7. Saint-Philibert de Tournus (Saône et Loire); end of XII century. *Op. cit.* pl. XVII, 3.
8. Saint-Ours de Loches (Indre et Loire); XIII century. *Op. cit.* pl. XIX, 13.
9. Saint-Michel d'Aiguilhe, near Le Puy (Haute-Loire); XIII century. *Op. cit.* pl. XXIII, 5.
10. Chapel of Saint-Crépin, Evron (Mayenne); XIII century. *Op. cit.* pl. XXVI, 2, 3.
11. Autry (Ardennes); XIII-XIV century. *Op. cit.* pl. XXXVIII, 15.

NOTE.

Mr. O'Connor's paper is intentionally objective, and for this reason no doubt he has refrained from certain generalizations which are in some cases suggested, in others imposed, by the interesting evolution which he has traced. They are nevertheless of such interest to students of Mediaeval Art that I have taken the liberty of adding them in the form of this note.

The first point of a general nature that one notices in reviewing the history of the "pin-wheel" is the curiously limited area over which its evolution extends. Motifs of ornament seldom behave in so circumspect a fashion and the negative aspects of the extension of the motif are worth noting. Thus it appears in no school of Carolingian illumination except the earliest one,—the Ada-group,—and thereafter confines itself to the German schools which have already been suspected of drawing largely from the Ada-manuscripts. It also duly appears in Belgian work of the eleventh century, thus confirming the indications of Rhenish influence on Belgian illumination which may be gathered from other sources. It does *not* appear in the Franco-Saxon manuscripts, nor in their descendants of Northern France, nor in the English schools, which brings into sharper relief the separation in origin and development of the French and English schools of illumination from those of the Rhine.

Again, its appearance and extension in the architectural sculpture of France in the twelfth century is marked by a similar circumscription of area. Mr. O'Connor's map will make this clear to any student of the French Romanesque. No examples have been noted in Normandy or the Northern and Eastern provinces, nor in England, and the motif is similarly absent from Languedoc and Perigord. The extension of the ornament seems thus to have been confined, save for the few examples found in Provence, to the valley of the Loire, with excursions into the southern outposts of Ile-de-France, and into the northern ones of Saintonge and Poitou.

Aside from these negative indications, we may draw certain positive inferences from the evolution of the motif which are of even greater interest. In the first place, the late Roman history of the motif has shown that it was popular in mosaics. The squaring of the design which is characteristic of these late mosaics reappears when the motif occurs in the Ada-manuscripts, and the conclusion is imposed that the illuminators borrowed the motif

from the mosaics or similar late Roman sources, which conclusion should exert a qualifying effect on the tendency manifest of late years to ascribe the ornament of the Ada-group to Oriental sources *en bloc*.

Lastly, there is the curious unheralded emergence of the motif in Lombard sculpture. It could not have been borrowed from France because the Italians used it first and in a different form. The only school which was commonly using the motif in the eleventh century, the period immediately preceding its appearance in Guglielmus' work, was the Rhenish school of manuscript illumination deriving its style from the "school of Reichenau" of the Ottonian period, which in turn, as Mr. O'Connor has shown, borrowed the motif from the Carolingian Ada-manuscripts. Rhenish illumination is thus indicated as the source from which Guglielmus got his "pin-wheels," and this seems to me to be a very natural source, in view of the fact that there is a distinct affinity between the figure-style of the Rhenish manuscripts and that which Guglielmus developed into such crude power in the reliefs at Modena. The Rhenish manuscripts in fact are the *only* monuments of the period preceding the rise of the Lombard style that afford a reasonable source for the Lombard figures and at the same time include the tell-tale "pin-wheel" in their repertoire of ornament. It seems to me that Mr. O'Connor's paper goes far toward clearing up the mystery of the origin of the Lombard style; it would seem that in its connection with Germany we have simply another example of that close relation of Italy with the Rhine which is a commonplace of mediaeval history.

C. R. MOREY.

PRINCETON UNIVERSITY.

ARCHAEOLOGICAL DISCUSSIONS¹

SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

WILLIAM N. BATES, *Editor*

220, St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

Mithra and Dusares.—In *R. Hist. Rel.* LXXVIII, 1918, pp. 207-212, F. CUMONT discusses the Mithra relief found by Butler at Si in the Hauran in front of a small temple of Dusares (cf. *A. J. A.* XXII, 1918, pp. 54-62). This association of the two divinities is significant. Both were said to have been born from stones, and both were solar deities. On December 25, the votaries of Dusares at Rome descended into a crypt to celebrate the rebirth of the sun. The mysteries of Mithra evidently had an important part in spreading in the East the practice of celebrating the rebirth of the sun after the winter solstice.

The Number Forty in Antiquity.—In *C. R. Acad. Insc.* 1919, pp. 13-23, M. DIEULAFOY undertakes to explain why the numbers 3, 7, and particularly 40 had especial sanctity in antiquity. He shows that special qualities were attributed to these numbers, e.g. by the pyramid builders in Egypt, and that they were adopted by the Hebrews from them.

The Folding Fan in Antiquity.—In *B. Soc. Ant. Fr.* 1918, pp. 101-107, V. CHAPOT discusses the origin of the folding fan. It does not appear to have been exclusively a Japanese or Chinese invention as is stated in Daremberg and Saglio s.v. 'flabellum.' On a Roman relief found at Carlisle, England, dating from the third century A.D. such a fan is shown, and again on a relief at Autun which is a little earlier (cf. Espérandieu, *Recueil*, III, p. 82). Similar fans are to be found on Persian monuments of the third century. The writer thinks that the type originated in Persia. Palm leaf fans were common in Asia Minor from early times.

The Villanovian Wheel with Birds.—In *R. Arch.*, fifth series, IX, 1919, pp. 338-366 (66 figs.), G. H. LUQUET discusses the "roue à oiseaux" found in the decoration of fibulae and other bronzes of the Villanova culture. This consists of a wheel to which are attached (or with which are associated) in a symmetrical manner the heads and necks of two swans. Comparison of many examples

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor BATES, Editor-in-charge, assisted by Professor C. N. BROWN, Miss MARY H. BUCKINGHAM, Dr. T. A. BUENGER, Professor SIDNEY N. DEANE, Professor HAROLD N. FOWLER, Professor HAROLD R. HASTINGS, Professor ELMER T. MERRILL, Professor LEWIS B. PATON, Professor A. S. PEASE, Professor S. B. PLATNER, Professor JOHN C. ROLFE, Dr. JOHN SHAPLEY, Professor ARTHUR L. WHEELER and the Editors, especially Professor MARQUAND.

No attempt is made to include in this number of the JOURNAL material published after December 31, 1919.

For an explanation of the abbreviations, see pp. 118-119.

shows that the wheel represents a chariot and that the birds were originally horses. There is then no reason to believe that the wheel has a solar significance. Similarly horses with wheels on their sides are abbreviated representations of chariots and horses.

Processes of Painting.—In *Mh. f. Kunstw.* IX, 1916, pp. 404-418, E. RAEHLMANN studies the development of the techniques of tempera, fresco, and oil painting with a view to learning what influences each had upon the others in the various epochs from ancient to modern times.

Hindu Statues Attributed to the Fifth Century B.C.—In *R. Arch.*, fifth series, IX, 1919, pp. 403 f. (fig.), S. R. gives a summary of an article which appeared in the *Journal of the Bihar and Orissa Research Society* (Patna, March, 1919, pp. 88-106) relating to two stone statues in the museum at Calcutta. The author, K. P. Jayaswal, declares that the inscriptions on the sculptures are earlier than Açoka, not, as General Cunningham believed, later. If the new readings are correct, the approximate dates of the statues, which are evidently related to Greek art, are 450 and 410 B.C.

The Cicada in China.—In *R. Arch.*, fifth series, IX, 1919, pp. 143-161 (2 figs.), G. GIESELER gives the facts of the life of the cicada, the Chinese beliefs (not altogether correct) concerning them, and the treatment of the insect in Chinese literature and art. The five virtues of the cicada are purity, incorruptibility, frugality, sincerity, majesty. It symbolizes the summer solstice. Cicadas of jade when pierced with a hole for a cord are mere amulets; when not so pierced they are of a peculiar light green color and are intended for the mouth of the dead. The cicada was sometimes eaten by the Chinese and was also used in medicine.

EGYPT

The Egyptian Calendar in the Third Century, B.C.—The correspondence between the Egyptian and Macedonian calendars during the third century B.C. is discussed by E. CAVAIGNAC in *B.C.H.* XXXVIII, 1914, pp. 5-20. Tables show the Julian date for the first of Thoth, the Egyptian date for the first of Dios, and the points of contact determined by the double dates contained in the documents. The battle of Sellasia is dated in June or July, 221 B.C., and the death of Ptolemy Euergetes in September or October of the same year.

BABYLONIA AND ASSYRIA

Assyrian-Babylonian Weights.—In *C. R. Acad. Insc.* 1919, pp. 150-157, Prince MICHEL SOUTZO points out that in Persia at the present time kernels of grain of different kinds are used in place of metal weights. This was true also in antiquity. It can be established mathematically that the kernel of wheat of the Romans was the same in weight as that of the Babylonians. This is important, for by means of it much may be learned about oriental weights, *e.g.* it can be shown that the heavy talent of Antioch is identical in weight with the talent of Susa. The Hebrew talent weighed 864,000 kernels, which is the same as the talent of double silver darics. Interesting correspondences work out also between Greek and Babylonian weights. The writer is able to establish certain tables. Thus 60 times the weight of a kernel of barley gives the weight of the Median siglos; 3,600 kernels equal the weight of the Median and neo-Attic mina; 216,000 kernels equal the weight of the Median and neo-Attic talent.

SYRIA AND PALESTINE

The Mosaic Inscription of Ain Douq.—In *C. R. Acad. Insc.* 1919, pp. 87-120 (fig.), C. CLERMONT-GANNEAU discusses the Aramaic mosaic inscription exposed by the explosion of a Turkish shell at Ain Douq, 7 km. northwest of Jericho, and reported to the French Academy by Major A. M. Furber. The mosaic lay four or five feet below the surface and had been badly injured in antiquity. It had formed part of the pavement of an old synagogue, not unlike the mosaic inscriptions of the synagogues of Kafr Kenna and Sepphoris, and had originally been surrounded with ornamental patterns. Major Furber reports in his possession a piece about two feet square representing two bunches of grapes, one black and the other white. It may date from the fourth century A.D. The inscription commemorates the gifts of a certain Benjamin, son of Joseph (Yoseh), and others to the shrine. Ain Douq should probably be identified with the ancient Noeros.

Three Rare Seleucid Coins.—E. ROGERS discusses in the light of history certain problems connected with coin-issues by the Seleucid kings of Syria. He explains the rarity of the date $E \Xi P$ (= 165 of the Seleucid era, or 148-7 B.C.) on coins of Alexander Balas as due to the temporary suspension of Alexander's authority in that year by the intervention of Ptolemy Philometor. The monogram (on coins of Antiochus VIII) of a Σ with a V resting upon its top-stroke he would interpret as standing for Scythopolis, the place of minting. He throws light on the history of Philip Philadelphus by means of a tetradrachm with the new date ζK . (*Num. Chron.* 1919, pp. 17-34; pl.)

Pre-Imperial Coinage of Roman Antioch.—A series of tetradrachms with the name and types of the Seleucid king, Philip Philadelphus, and the letters AYT (in monogram) cannot possibly have been struck in the reign of that monarch, and must be ascribed (with cognate bronzes) to the period 47-7/6 B.C., when Antioch was viewed as an "autonomous" state. (E. T. NEWELL, *Num. Chron.* 1919, pp. 69-113; 2 pls.)

GREECE

ARCHITECTURE

The Entrance to the Acropolis under the Empire.—In *B. C. H.* XXXVIII, 1914, pp. 272-295 (2 figs.), P. GRAINDOR discusses the later additions to the Periclean entrance to the Acropolis. An examination of a corrected text of the lists of $\pi\upsilon\lambda\omega\rho\alpha\iota$ (*I. G.* III, 1284) leads to the conclusion that the monumental staircase is a work of the time of Claudius. The masons' marks, incorrectly given by Bohn, and the handling of the material point to a late date for the flanking towers of the Beulé gate, which are probably the $\pi\upsilon\lambda\omega\delta\upsilon\epsilon\varsigma$ given by Marcellinus (*I. G.* III, 398). The inscription, however, is to be dated about the end of the fourth century, when the invasion of Alaric probably led to the construction of fortifications in front of the Propylaea. The Beulé gate is later than the towers and is tentatively dated in the seventh century.

A Forgotten Drawing of the Parthenon.—In *Jb. Kunsth. Samm.* XXXII, 1915, pp. 403-415 (pl.; 8 figs.) H. SITTE publishes Dalton's plate showing the southeast corner of the Parthenon in 1749. The seven eastern metopes of the south side were then in position, and their order, as drawn by Dalton, is

exactly that of the last seven metopes in the series drawn by Nointel's artist in 1674. Since the first eight of this series are certainly the western metopes of the south side, it is necessary to return to the old view that Nointel's artist drew only the thirty-two metopes on the south side. This leads to the conclusion that all this series must be interpreted as referring to the battle of the Centaurs and Lapiths, conceived as a single continuous representation rather than as thirty-two individual groups.

The Delphian Treasuries.—Literary sources record thirteen treasuries at Delphi, while the excavations have revealed twenty-four foundations of the type usual in such buildings in the precinct of Apollo and two in that of Athena Pronoia. In *B. C. H.* XXXVI, 1912, pp. 439-493 (pl.; 6 figs.), W. B. DINS-MOOR studies these remains with a view to determining their identity and dates. This involves an examination of the narrative of Pausanias, of the foundations and the scattered blocks which can be connected with the several structures, and of the results obtained by earlier investigators. Especial attention is given to the site of the Cnidian treasury, to the remains of the earlier and later Syracusan treasuries, which can be restored in many details, and to the identity of the structures in the Marmaria. Here one of the small buildings is assigned to the treasury of Massilia and Rome, while the *κἄτω ναὸς* of Plutarch are identified with the temple of Athena Pronoia (rebuilt about 510 B.C.) and the other small building, which was the expiatory chapel proper. The successive periods in the history of the Marmaria and in the growth of the precinct of Apollo are briefly traced and the article concludes with a chronological list of the several treasuries, named and nameless. *Ibid.* XXXVII, 1913, pp. 5-83 (pl.; 13 figs.) the same writer discusses the four Ionic treasuries, the Cnidian (565 B.C.), Clazomenian (550 B.C.), Massiliot (535 B.C.), and Siphnian (525 B.C.), considering both their restoration and their architectural relations. From foundations to acroteria the surviving blocks are carefully collected, listed, and assigned to their places in the several structures, with minute analysis and discussion of all significant details. It is found that the Cnidian treasury was severe and devoid of sculpture, except for two Caryatides in front, here probably used for the first time. The Clazomenian and Massiliot treasuries were Aeolic; scarcely anything has survived from the former, but of the latter little is lacking for a complete restoration on paper. The Siphnian treasury might almost be reërected from the original stones; it is the best proportioned and most finished of them all. On the model in the museum at Delphi only the dedicatory inscription is Cnidian, some of the details are Massiliot, but the greater part is Siphnian.

The Corinthian Treasury at Delphi.—In *B. C. H.* XXXVI, 1912, pp. 642-660 (3 figs.), E. BOURGUET discusses the position of the Corinthian Treasury at Delphi. He places it to the east of the staircase leading up from the sacred threshing floor, and southwest of the foundations assigned to it by Karo (*Ibid.* XXXIII, 1909, pp. 201-209) and Pomtow (*Berl. Phil. W.* 1909, cols. 315-330). Excavations at this site have shown remains of tufa foundations, and it is also possible to identify other blocks as from the walls of the building.

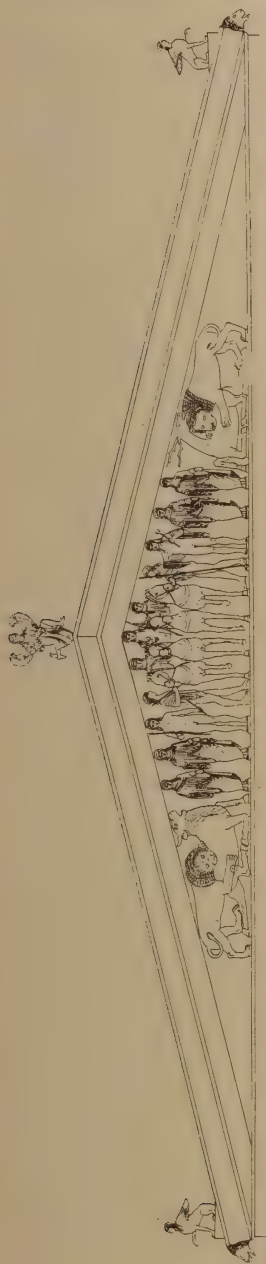
The East Pediment of the Archaic Temple at Delphi.—It has long been known that in the archaic temple of Apollo at Delphi the sculptures in the west pediment were of poros and in the east of marble. The fragments of the latter were carefully studied by Homolle (*B. C. H.* XXV, 1901, pp. 457 ff.; cf. *A. J. A.*

VII, 1903, pp. 463 f.), who reconstructed two animal groups in the angles and the contest between Apollo and Heracles in the centre. The problem is again discussed in *B. C. H.* XXXVIII, 1914, pp. 327-350 (2 pls.; 13 figs.) by F. COURBY in the light of additional fragments and more accurate knowledge of the surface of the tympanum. The groups in the angles are unchanged but it is suggested that similar smaller groups occupied the extreme corners. The centre is occupied by a group of Apollo, Leto, and Artemis in a quadriga, facing the front as in the metope from Selinus. On each side are two male figures and beyond them two females in the costume and attitude of the *κόραι* (Fig. 1).

SCULPTURE

Early Mycenaean Reliefs.—In a comprehensive study of reliefs of the early Mycenaean period, both in Crete and on the mainland of Greece, K. MUELLER (*Jb. Arch.* I. XXX, 1915, pp. 242-336; 4 pls.; 34 figs.) discusses the origin and course of the strong naturalistic movement in Cretan art of the Palace period, its relation to foreign sources, to the earlier similar appearance in Early Minoan III, and to the art of painting on the one hand and to sculpture in the round on the other; the native tendency to geometric and conventionalized forms in Greece and the Aegean; the influence of these two tendencies upon one another; and the mixture of foreign and native elements in the art of the stelae and contents of the shaft-graves of Mycenae. His examples extend from the Reaper vase and other steatite vases from Hagia Triada to the gold cups of Vaphio, of which eight new photographs are given, and they include the stucco and faience reliefs of Cnossus, the small gold plaques and ornaments, the inlaid weapons and silver vases of Mycenae, and many lesser objects. The "Besieged City" and the large round silver vase with combat scenes from Grave IV, he places earlier, on stylistic grounds, than the art of the older beehive tombs represented by the Vaphio cups. The latter, though certainly designed as a pair, are not executed by the same hand. He concludes that the princes whose tombs in

FIGURE 1.—RESTORATION OF THE EAST PEDIMENT OF THE OLD TEMPLE OF APOLLO AT DELPHI.



Argolis were so richly furnished were not foreign invaders ruling a conquered population, but native rulers who patronized both native and imported art and artists. Although the foreign influence is closely allied to what is known of Cretan art, it is not identical with this, and its real origin is at present unknown, but may perhaps lie in the yet unexplored western half of the island.

A Forgotten Artist.—The sculptor Pollias, whose name appears on two bases found in the Persian débris on the Acropolis, is tentatively identified by C. ROBERT (*Jb. Arch. I. XXX*, 1915, pp. 241–242) with the father of the red-figured vase painter Euthymides and with the Pollis mentioned by Vitruvius as a writer on *symmetriae* and by Pliny as a maker of votive statues. As the dedicator mentioned in one of the inscriptions is Crito, son of Seythes, presumably the black-figured vase painter of that name, the sculptor was apparently a contemporary of Antenor, and it is possible that among the Acropolis Maidens the figures to which the two bases belong might be identified. Unfortunately the bases have been removed to the National Museum while the statues remain on the Acropolis.

The "Mourning Athena."—In the relief of the "mourning Athena" the pillar is to be interpreted as the narrow face of a stele, the broad face of which is turned toward the goddess who is reading the inscription thereon. She appears with her usual lance and helmet as the guardian of the law. If the relief commemorates some important vote, it may perhaps be connected with the decision to build the Parthenon. (A. DE RIDDER, *B. C. H. XXXVI*, 1912, pp. 523–528.)

The Athena of Myron.—In *R. Arch.*, fifth series, IX, 1919, pp. 202 f., S. REINACH briefly notices an article by Jamot (*Mém. de la Soc. archéol. du Midi*, XVII) on the replica of the Athena of Myron which was found at Chiragan and exhibited in the museum at Toulouse. Reinach suggests that this replica, in which the lance appears to have rested on the ground, may have been intended to stand alone, not in a group with Marsyas. Some criticisms of Jamot's article are added.

Myron of Thebes.—A celebrated statue of a drunken old woman, known from epigrams and replicas such as the marble in Munich was the work of Myron (Plin. *N. H. XXXVI*, 32). It is clearly not the work of Myron the Athenian. In *B. C. H. XXXVII*, 1913, pp. 359–377 (5 figs.), J. SIX assigns it to Myron of Thebes, who worked at Pergamum about 240 B.C. on the statues celebrating the victory over the Gauls. To him may also be ascribed tentatively the head of a Gaul from Delos (*Ibid. XXXIV*, 1910, pl. IX), the statue of Philip of Pellene, the pugilist, at Olympia, assigned by Pausanias to Myron, the statue of Ladas at Argos, as may be inferred from the language of the epigrams, and the so-called Seneca, best represented by the bust from Herculaneum. In the extant works the *open mouth*, either singing or breathing hard, is prominent, and the same feature is emphasized in the literary notices of lost works. It seems also that in his realism, which did not shrink from the ugly or repulsive, Myron resembled the painter Pauson. Here, as elsewhere, the painter preceded the sculptor in developing new tendencies. *Ibid. XXXVIII*, 1914, pp. 479–480, F. HAUSER corrects a statement of Six as to his view of the relation of the pancratiast of Autun to Polyclitus.

The Cephissus of the West Pediment of the Parthenon.—The "fluid" lines of the recumbent figure at the north end of the west pediment of the Parthenon,

both in the torso and more especially in the drapery, and the force which seems to bind it to the stream in which it lies, scarcely able to rise and turn enough to look at what is taking place in the centre of the scene, are in themselves sufficient proof that it represents a river god. But further evidence is found in a statue evidently copied from this one in Roman imperial times, which had a water-jar lying under the left arm and was used as a fountain. This statue was found at Autun in 1640, and has since disappeared, but it is known from the description given in the *Histoire de l'antique cité d'Autun*, of 1660, and from a drawing lacking the head, in E. Thomas's new edition of this work, of 1846. It has been suggested that the figure next to the Cephissus is the Eridanus, leaving the two in the opposite corner of the pediment for the Ilissus and the nymph Callirrhoe. (C. ROBERT, *Jb. Arch. I.* XXX, 1915, pp. 237-241; 3 figs.)

A Head of Heracles.—In *B. C. H.* XL, 1916, pp. 143-144 (fig.), C. DUGAS publishes a head of Heracles found some time ago at Tegea. The hero wears the lion's head as a helmet, and the paws were originally crossed on his breast. The statue must have belonged to the same type as four representations of Heracles discussed by Arndt, *Einzelstudien*, III, p. 10, No. 593A. The head also resembles that on a statuette of Asclepius from Epidaurus, and like it springs from the Praxitelean tradition.

The Colossus of Rhodes.—In *R. Arch.*, fifth series, IX, 1919, pp. 64-76, F. PRÉCHAC collects and discusses references to the Colossus of Rhodes in ancient literature. From these he concludes that the statue of Helios stood in a chariot drawn by four horses. The whole was supported by a great base adorned with semicolumns. The well known metope from Ilium may give some idea of the general appearance of the colossal group.

The Antinous of Delphi.—In *B. C. H.* XXXVII, 1913, pp. 323-339 (4 figs.), G. BLUM compares the statue of Antinous discovered at Delphi with its reproduction on a large bronze coin of Delphi now in Vienna. The coin indicates that the statue was dedicated by T. Flavius Aristotimus, high-priest of Apollo, at the time of Hadrian's visit in 125 A.D. It also shows that at Delphi Antinous was honored as *ἥρωος προπύλαιος*. This epithet is not due to his assimilation with either Hermes or Apollo, nor to the position of his statue, but probably to his association by the Delphians with their local hero, Autonous (Hdt. VIII, 37) whose shrine was near the entrance to the town. The coin reproduces the statue accurately, except in those points where alteration was imposed by the difference in technique. It seems that the left arm of the statue was raised as if the hero had just placed a crown upon his head,—a gesture developed from that of the Polyclitan Cyniscus. Analogous treatment of other statues upon coins is also discussed.

Portraits of Hellenistic Princes.—In *B. C. H.* XXXIX, 1915, pp. 17-32 (pl.; 2 figs.), G. BLUM publishes: (1) a gem in the *Cabinet des Médailles*, which by the aid of coins he identifies as a portrait of the young Ptolemy IV, Philopator, who, he argues, was born later than the date of the decree of Canopus, and was not over seventeen when he ascended the throne; (2) two gems in the Louvre showing an Egyptian prince with the simple Hellenistic diadem in one, and the attributes of the Pharaoh in the other, probably Ptolemy VI, Philometor; (3) a marble head from the west slope of the Acropolis in Athens (*Ath. Mitt.* XXI, 1896, pl. X), which may well be a portrait of Antiochus VIII, Grypus. It shows a precision in detail without loss of personal expression such as is found in few works of Hellenistic art.

VASES AND PAINTING

"Rhodian Geometric" Vases.—In *B. C. H.* XXXVI, 1912, pp. 495-522 (2 pls.; 13 figs.), C. DUGAS collects the principal examples of "Rhodian geometric" vases already published, adds three new examples of the developed style, and discusses the place of the "Rhodian" group among the geometric vases, and the region whence this group comes. He concludes that these vases show much closer connection with the geometric of Thera and the Cyclades than with that of Athens and Attica. The evidence also indicates that the vases were made chiefly in Rhodes and Miletus. These places, or southwestern Asia Minor in general, are also the chief sources for the orientalizing "Rhodian" ware.

Attic Black-figured Vases in Red-figured Style.—Pottier's general assumption that the red-figured style did not abruptly displace the black-figured, and that the later style is largely used in the old technique at the end of the sixth century is given concrete illustration by F. HOEBER in *Mh. f. Kunstw.* XI, 1918, pp. 33-51 (7 pls.). A number of late black-figured vases from various collections are stylistically analyzed and clear parallels with red-figured work are pointed out in the types of heads, treatment of drapery, freedom of movement, and other details.

A Crater in Catania.—In *R. Arch.*, fifth series, IX, 1919, pp. 37-47 (3 figs.), S. MIRONE describes and discusses a red-figured calix-crater (*vaso a campana*) in the Museo Biscari at Catania, which is published in several places (e.g. Levezow, 'Ueber die Entwicklung d. Gorgonen-Ideals', *Abh. Berl. Akad.* 1832, pl. 3; Inghirami, *Vasi fittili*, I, pls. 70, 71). The figures on the front of the vase are Andromeda, Athena, Perseus, Cepheus, and Phineus; the scene is on the seashore, immediately after the liberation of Andromeda. On the reverse are Poseidon, a nymph, and the two sisters of Medusa. The execution of the painting is very fine. Its date is not long after 460 B.C.

The Sacrifice of Polyxena on an Apulian Crater.—In *Atene e Roma*, XXII, 1919, pp. 99-102 (fig.), MARIA DOLORES BELLISAJ argues that the fragment of an Apulian crater with figures of a girl with a youth on each side standing before an Ionic column (cf. *Neapolis*, II, pp. 136 ff.; IV, pp. 266 ff.) really represents Polyxena being led to the tomb of Achilles for sacrifice.

Delian Vases with Decoration in Relief.—Among the Hellenistic vases with decoration in relief is a clearly marked group made of a fine red clay with a brilliant red glaze, which, however, through unequal baking is not of uniform tint and is even sometimes black. The decoration consists of figures or ornaments moulded separately (the vases are wheel made) and applied *à la barbotine*. This group, as represented at Delos, is discussed in *B. C. H.* XXXVII, 1913, pp. 418-442 (6 figs.) by F. COURBY. It is closely connected with similar vases in metal and some of the figures seem directly moulded from such works. The vases are certainly not of Delian manufacture, and all the evidence confirms the view of Zahn that they are of Pergamene origin. They seem to have been made between 150 B.C. and 50 A.D. The resemblance to the Arretine pottery is striking in spite of the difference in technique. Possibly the types were brought to Arezzo by Asiatic workmen, such as Tigranes and Bargates.

Clazomenian Sarcophagi.—In *B. C. H.* XXXVII, 1913, pp. 378-417 (7 pls.; 9 figs.), C. PICARD and A. PLASSART publish ten Clazomenian sarcophagi. Six were in dealers' hands in Smyrna in 1912, one in Ny-Carlsberg, two in the

Athens museum, and one in the *Musée du Cinquantenaire* in Brussels. Each is minutely described and illustrated. The general discussion treats of the form, technique, and decoration. Seven of the sarcophagi have the usual trapezoidal form, the other three belong to the small and later group with a rectangular top. One of these, like the specimen in the British Museum, has a cover. The technique shows the common outlines on light ground and solid silhouettes. One sarcophagus has a row of rosettes in outline on black ground. The decoration consists of the usual floral and geometric ornament, animals, among which two swans are noteworthy because of the rarity of birds on these sarcophagi, and human figures. Two winged horsemen may well be the Dioscuri, and other winged figures are probably mythological, though there is not sufficient evidence to assign them names. There are also the usual scenes of fighting, chariot racing, and other contests. In conclusion attention is called to the fact that while most of these sarcophagi come from Clazomenae, specimens have been found elsewhere, and the painted terracotta sarcophagus seems to be early and widespread in Asia Minor.

INSCRIPTIONS

The Dates of Athenian Archons under the Empire.—In *B. C. H.* XL, 1916, pp. 74-77, P. GRAINDOR presents additional epigraphic evidence which leads him to fix the dates of certain Athenian archons somewhat later than he did in an article, *ibid.* XXXIX, 1915, pp. 391-394. His new series is as follows: Callicrates 152/3 A.D., Attalus 153/4, Phileas 154/5, Aelius Alexandros II 155/6, Rufus 156/7. These changes necessitate altering the dates of other monuments from those given in the earlier study. Further evidence is also produced for placing the archonship of Metrodorus and the portrait of Heliodorus before 111/2 A.D.

The Return of the Tegean Exiles.—In *B. C. H.* XXXVIII, 1914, pp. 101-188 (2 pls.; fig.), A. PLASSART publishes with a detailed historical and linguistic commentary the inscription from Delphi (*I.G.* V, 2, pp. xxxvi f. D1) containing the regulations of the city of Tegea concerning the return of certain exiles. The decree embodies amendments intended to remove difficulties which had arisen in the interpretation of an earlier document, which is identified with the edict issued by Alexander in 324 B.C. authorizing the return of all Greek exiles to their cities.

The Inscription of Aristotimus at Delphi.—In *B. C. H.* XXXVI, 1912, p. 494, A. D. KERAMOPOULOS publishes a small additional fragment of the inscription of the priest, Aristotimus (*Ibid.* XXXV, 1911, pp. 492 f.; cf. *A. J. A.* XVI, 1912, p. 580). It confirms his restorations except that the name is written Ἀριστότειμος.

The Will of a Thessalonian Priestess.—In *B. C. H.* XXXVIII, 1914, pp. 38-62, C. PICARD and C. AVEZOU discuss a Greek inscription, containing the will of a priestess, formerly embedded in the pavement of the mosque, Eski-Djuma, and recently removed to a Lyceum in Salonica. It has been known since the eighteenth century and was published by Perdrizet (*Ibid.* XXIV, 1900, p. 321; cf. *A. J. A.* V, 1901, p. 455). The authors correct the beginning of the will, reading *ἱέρεια οὐτα Εὐεία Πρινοφόρου*, thus removing all reference to a (Dionysus) Prinophoros. In lines 9 ff. they read *ὅπως ἀποκέηται (ἀποκαίηται) μοι*, referring to the rite of *ἀπόκανσις*, which is explained, in the

light of texts from Macedonia and Asia Minor, as the burning of roses at the tomb. In Macedonia the presence of roses in the funeral ceremonies is not to be derived, as Perdrietz supposed, from the Roman *rosalia*, but rather from the cults of Asia Minor.

The Date of the Portico of Antigonus at Delos.—In *B. C. H.* XXXVIII, 1914, pp. 296–299, F. COURBY on the evidence of inscriptions places the construction of the Portico of Antigonus Gonatus at Delos between 260 and 248 B.C. It was, therefore, probably given at the time of the foundation of the Antigoneia, which were first celebrated either in 254 or 252 B.C.

A Senatus Consultum from Delos.—In 1911 there was discovered at Delos in a small Serapeum (the third sanctuary of the Egyptian gods found on the island) a stele bearing a decision of the Roman Senate establishing a certain Demetrius in his former rights in this temple. It was published by Cuq in *Mem. Acad. Insc.* XXXIX, 1912, pp. 139–161. As his commentary was concerned chiefly with the legal aspects of the document, it is republished with a historical discussion by P. ROUSSEL in *B. C. H.* XXXVII, 1913, pp. 310–322 (pl.). He dates it early in 164 B.C., and connects it with the troubles that followed the reestablishment of Athenian rule in 166. Demetrius seems to have been the hereditary priest of a private cult of Serapis, established in the third century, who had been dispossessed by the Athenians, when the Delians were expelled from the island. He appealed to the Roman Senate, and the inscription shows that he brought their vote of advice to Athens, where the Generals and Council approved it, and in consequence transmitted the order of reinstatement to Delos.

Curses.—A stele of Delos (*I. G.* XI, 1296) contains on both faces the same inscription, in which the priest and priestesses place under a curse those who carry off slaves or other property from the precincts of Apollo. In *B. C. H.* XXXVIII, 1914, pp. 250–271, R. VALLOIS studies this inscription and the nature of *ἀπαί* in general according to Greek ideas, correcting in some details the views of Ziebarth (*Hermes*, XXX, 1895, pp. 57 ff.). The curse owes its effect to the power of the one who pronounces it over those against whom it is pronounced. While essentially religious, it does not invoke the justice of the gods nor seek to secure their aid by magic. It is a public social act, an exercise of authority.

An Inscription of Tenos.—In *B. C. H.* XXXVIII, 1914, pp. 444–446, P. GRAINDOR defends his readings of an inscription of Tenos (*Musée Belge*, 1911, pp. 253 ff.) against the criticisms of Wilhelm in *’Αρχ. ’Εφ.* 1914, p. 87.

The Temple Inscription of Lindus.—In *Hermes*, LI, 1916, pp. 491–498, B. KEIL discusses the literary style of the great temple inscription of Lindus. He finds that Timachidas avoids hiatus, writes rhythmic prose, and that he follows the rules of the rhetoricians for narrative composition.

GENERAL AND MISCELLANEOUS

Ancient Greek Harbors, Lechaëum and Delos.—The late J. PARIS, who fell in April, 1915, at Koum-Kaleh, Dardanelles, had begun a study of the remains of ancient Greek harbors, two parts of which have been published. The first, *B. C. H.* XXXIX, 1915, pp. 5–16 (fig.), deals with Lechaëum. There were two large outer basins, each protected on the west by a mole. Narrow passages, about 14 m. wide, led to two connected inner basins, from which opened four smaller basins or docks with quays. The remains are

scanty, but sufficient to show that the arrangements were well adapted to furnish protection against the prevailing winds and to hinder the silting up of the port. The article enlarges and corrects the account of S. Georgiades, *Les ports de la Grèce dans l'antiquité qui subsistent encore aujourd'hui*, Athens, 1907.

The second article, *ibid.* XL, 1916, pp. 5-73 (map; 39 figs.), is a detailed account of the moles, quays, and other harbor works of Delos. The author considers first the physical and historical causes for the development of this island as a trading centre, and then passes to a description of the principal harbor, with only a brief notice of the smaller harbors of Skardhana and Ghourna. By the aid of soundings and the scanty remains along the shore it is possible to determine five, or perhaps six, basins, separated by moles for the most part of small projection. The first and largest basin, with the Agora of Theophrastus at the north and that of the Competalistae at the south end, furnished ample space for the mooring and unloading of many ships. The other basins, extending along the shore toward the south, were all smaller, shallower, and less sheltered. The quays that lined the shore were probably much like those now in use on Myconos and other islands. They were paved and on the land side bordered by shops, warehouses, and other buildings, not always directly connected with commerce. While there are traces of a sheltering mole at a very early period, and of a rudimentary quay near the sanctuary during the fifth century, the great development of the harbor belongs to the first part of the second century B.C. when Delos had become a great commercial rather than religious centre.

Greek Beacons and Light-Houses.—In a controversial article (*Jb. Arch. I.* XXX, 1915, pp. 213-237; 3 figs.), H. THIERSCH cites numerous passages from ancient writers, with corroborative testimony from coins, to prove that the Greeks from the earliest times had a system of fire and smoke signals and were familiar with the practice of sailing at night and with the use of beacon fires to guide night voyagers, especially to mark harbor entrances and good landing places. The fire was sometimes elevated on pillars as at the harbor of the Piraeus, and sometimes on a tower with large windows in the upper story for the light to show through. Of these towers the great Pharos at Alexandria was the most splendid example. The view of certain modern engineers, not classical scholars, that such towers were built and used only for day service until the Romans in the time of Tiberius introduced the use of fire for night signals, is shown to be quite untenable.

Nemesis.—In *B. C. H.* XXXVIII, 1914, pp. 89-100 (3 figs.), P. PERDRIZET continues his studies of monuments relating to Nemesis (*Ibid.* XXII, 1898, pp. 599 ff.; XXXVI, 1912, pp. 248 ff.; cf. *A. J. A.* IV, 1900, p. 528; XVI, 1912, p. 573). He discusses first a relief from Salonica bearing the figure of Nemesis and a dedication to the θεὸς ὕψιστος. He then examines the relation between this deity, Nemesis, and the representation of raised hands. The latter is a Semitic symbol of prayer, especially against an enemy, and was used by Judaisers, who thus united with their supreme god in prayers for justice this symbol and the Greek goddess, Nemesis. Finally he considers Nemesis as invoked in connection with agonistic victories.

A Greek Mirror from Rossano.—In 1906 some tombs containing Greek antiquities were discovered by accident at Rossano. The most important objects found in them were two small black-figured lecythi and a large bronze

mirror. The latter when complete had a height of 38.7 cm. The handle is in the shape of a woman, clothed in a Doric chiton, standing on a small base and by means of her raised hands supporting the disk of the mirror, which also rests upon a cushion on her head. The back of the disk is engraved with an elaborate rosette design. Above the disk was a small rooster with a ring for suspension. The mirror is an excellent specimen of the work of a Greek artisan and probably dates from the second quarter of the fifth century B.C. (P. ORSI, *Boll. Arte*, XIII, 1919, pp. 95-101; 5 figs.)

Greek Politics and the Delphian Naopoi.—The lists of the *ναοποιοί* of Delphi show that representation in this body was not definitely fixed, but varied both in the states represented and in the size of the respective delegations. It seems natural to suppose that the composition changed with political and economic conditions. In *B. C. H.* XL, 1916, pp. 78-142, P. CLOSÉ analyses the extant lists of *ναοποιοί* between 356 and 327 B.C. and compares the results with the literary evidence as to the relations of the several states during that period. He finds that there is in general a marked parallelism between the representation accorded the different states and their relative importance, or their relation to the sanctuary and its special protectors at a given time. This is especially evident about 346/5 and 338 B.C. The author adds that this parallelism is not always perfect, and that life in Delphi was not always a complete reflection of general Hellenic conditions.

Archaeological Papers.—In Volume 28 of the *Proceedings* of the Numismatic and Antiquarian Society of Philadelphia (Philadelphia, 1919), there are two papers of archaeological interest. Pp. 167-183 Professor WILLIAM N. BATES describes 'Nicholas Biddle's Journey to Greece in 1806.' Biddle was the first American to travel in Greece and the account given is based upon his unpublished journal from which numerous quotations are made. His route extended from Zante along the northern coast of the Peloponnesus, across the Gulf to Delphi, then to Livadia, Thebes, and Athens. He copied inscriptions and made notes of ancient remains in various places. Pp. 185-197 Dr. STEPHEN B. LUCE gives an account of the 'Civilization of Crete in Prehistoric Times,' in which he describes the discoveries at Cnossus, Phaestus, Hagia Triada, and elsewhere.

Studies in Greek Magic.—In *B. C. H.* XXXVII, 1913, pp. 247-278 (2 pls.; fig.), A. DELATTE begins a series of studies in Greek magic by publishing a curious marble sphere found in the theatre of Dionysus in Athens in 1866. It is covered with inscriptions and figures in low relief. The relief represents a divinity crowned with rays enthroned beneath a canopy, and holding a whip in one hand and a sceptre terminating in three torches in the other. At his feet are two dogs, one of whom is also crowned with rays. On one side are a torch, a seated lion, and a human-headed serpent; on the other a circle enclosing a row of five small overlapping circles and various signs. Above the heads of the lion and serpent is another circle containing a triangle. Greek letters arranged in groups or forming unintelligible words are scattered over the surface. A detailed study of this symbolism and a comparison of magic papyri and other literary evidence lead to the conclusion that we have here a magical monument connected with the solar cult and similar to those described, with directions for making, in the papyri. As it was found in the theatre, it may have been prepared and placed there to secure success in theatrical con-

tests. *Ibid.* XXXVIII, 1914, pp. 189-249 (10 figs.) the studies are continued by a discussion of the 'Ακέφαλος Θεός in Graeco-Egyptian magic. A gem in Athens shows a nude male figure, headless and with his hands bound behind his back; in the field are a sword thrust into the ground, an ass's head, and the inscription ΒΑΧΥΧ. The magical papyri, where the 'Ακέφαλος Θεός is frequently invoked, show that the divinity was identified with the Sun, and also at times with Set-Typhon, Osiris, and Bes. The headless god finds, perhaps, its origin in the legend of the mutilation of Osiris, but the magic rites, as for example the *μυστήριον* of the sacred scarabaeus, show that these representations are also connected with the magician's threats to bind and torture the divinity unless his demands are granted. Several of the papyri are published in revised texts and discussed at length.

Zagreus and Aristotle.—In *R. Arch.*, fifth series, IX, 1919, pp. 162-172, SALOMON REINACH, attributing to Aristotle (Problem 43, Bussemaker, Aristotle, IV, p. 331) the statement (Athenaeus, XIV, 20, p. 656 A) that boiled meat must not be roasted or boiled again, connects it with the boiling and roasting of Zagreus by the Titans. This was a part of the Eleusinian mysteries, and references to it are contained in a fragment of Pindar (ed. Sandys, p. 390) and in Virgil's *Aeneid*, IV, 58. The pomegranate sprang from the blood of Zagreus; hence the prohibition of it in the Eleusinian ritual; hence also the reticence of Pausanias (II, 7, 4) concerning it in his description of the Hera of Polyclitus.

ITALY

ARCHITECTURE

The Roman Theatre at Merida.—In *R. Ét. Anc.* XXI, 1919, pp. 193-209 (13 figs.), R. VALLOIS discusses, as a result of special studies made in 1916, the architectural peculiarities of the *paradoi* of the Roman theatre of Merida. He also discusses various details of the *cavea* and shows that when it was constructed no permanent building was erected in front of it. The *pulpitum*, *versurae*, and *scaenae frons* were probably temporary wooden structures. The colonnade behind the theatre is of later date.

COINS

Roman Coinage.—In *Cl. Phil.* XIV, 1919, pp. 314-327, T. FRANK attempts to show (1) that Ostia was colonized between 358 and 349 B.C.; that the ship's prow on early Roman coins commemorates this colonization, rather than the capture of the fleet of Antium in 338; and, consequently, that this coinage began shortly after the establishment of Ostia as a colony; and (2) that the Romans maintained a bimetallic policy down to about 150 B.C. (when the bronze *as* was withdrawn from circulation), during which period the bronze coinage was kept at very nearly its intrinsic value.

Roman Monetary System.—The second part of E. A. SYDENHAM's history of Roman coinage on its systematic side carries the account on from Augustus through Diocletian, and is to be further continued. (*Num. Chron.* 1919, pp. 114-167.)

Last Issues of Gold and Silver from the Senatorial Mint of Rome.—H. MATTINGLY outlines, with chronological tables, a new system of accounting

for and dating the series of rare aurei and denarii that refer to Augustus as emperor but bear the names of fifteen different mint-masters. (*Num. Chron.* 1919, pp. 35-44.)

Thurinus, the Surname of Augustus.—Suetonius (*Aug.* 7) makes the statement that Augustus when an infant was given the surname Thurinus. In *C. R. Acad. Insc.* 1919, pp. 134-142, A. BLANCHET shows that he did not abandon this name when he became emperor. Among the coins struck by him for distribution at the Saturnalia was one with the figure of a bull charging to the left which was especially common from 12 to 10 B.C. The type belongs to the city of Thurium and its use by Augustus is an allusion to the name Thurinus which he received from his father. The type with the bull was also appropriate to Augustus because of its astrological significance.

Tribunician Years of Nero.—An anonymous article in *Num. Chron.* 1919, pp. 199-200, suggests that the occurrence of TR.P.VII (instead of the expected TR.P.VI) in an Arval inscription of Jan. 1, 60 A.D., which has caused difficulty to historians in the dating of Nero's tribunician years, ought to be considered a mere stone-cutter's error; for the coins are against it, and their series of dates is consistent throughout.

GENERAL AND MISCELLANEOUS

Scenes from the Aeneid on a Gladiator's Helmet.—One of the helmets found in the barracks of the gladiators at Pompeii is decorated with figures in high relief which have been supposed to represent an Iliupersis. In *Atene e Roma*, XXII, 1919, pp. 113-127 (4 figs.), D. COMPARETTI shows that there are several distinct scenes all of which belong to the story of Aeneas and Iulus, and that they were directly inspired by the *Aeneid*. He calls attention to the fact that in graffiti found at Pompeii the title *Iulianus* is added to the names of certain gladiators. The men so called probably belonged to the imperial house, and perhaps came from the gladiatorial school at Capua. This helmet with reliefs glorifying Iulus, therefore, belonged to some *Iulianus*.

A Praenestine Cista.—In *B. R. I. Des.* VII, 1919, pp. 39-41 (fig.), L. A. S. publishes a cista owned by the Rhode Island School of Design. The subjects engraved on the bronze are not recognizable in every detail, though some of them are apparently concerned with a story of Poseidon. A group of figures in the centre of the cylinder represents a scene at the bath and a group of gods. The borders of ivy indicate the provenance of the work as Praeneste, and it is probably to be dated near the middle of the fourth century, B.C.

FRANCE

The Louvre during the War.—Under the title *Le Musée du Louvre pendant la Guerre 1914-1918* (Paris, 1919, Imprimerie Général Lahure. 20 pp.; 4 figs.; also *R. Arch.*, fifth series, IX, 1919, pp. 367-375), E. POTTIER describes the measures taken to protect the ancient monuments and works of art in the Louvre during the war. The more important antiquities were removed to the basement, or protected by timbers and sand bags in the galleries where they had been exhibited. All the important paintings and tapestries were removed either to Toulouse or to Blois. They have since been returned to the Louvre entirely uninjured.

Antiquities at Bayonne.—In *R. Arch.*, fifth series, IX, 1919, pp. 77-97 (14 figs.) is a summary description, by RAYMOND LANTIER, of the antiquities in the Léon Bonnat collection of the museum at Bayonne. There are eight Egyptian statues (including one head without body); twenty-eight Greek or Roman statues, torsos, and heads of marble or other stone; eleven Egyptian bronzes; thirty Greek and Roman bronzes, six of which are fragments of statues, the rest statuettes; two Etruscan bronzes; eighty-one Greek terracottas, of which two are large heads, seven are reliefs, and the rest statuettes; ten Egyptian figurines of colored paste; six Egyptian portraits painted on plaster; and four more or less fragmentary carved objects of bone. These are Greek work.

Gallo-Roman Reliefs.—In *R. Hist. Rel.* LXXVIII, 1918, pp. 143-161, W. DEONNA examines the three Gallo-Roman reliefs in the museum at Dôle discussed by Toutain (*ibid.* 1916, pp. 117 ff.) and others. He thinks them undoubtedly genuine, and is able to cite numerous parallels to the objects represented. They are emblematic of some celestial divinity, the giver of fertility and source of life.

The Neolithic Axe of Loudun.—In *R. Ét. Anc.* XXI, 1919, pp. 219-222, W. DEONNA discusses the neolithic axe with the sign of a key upon it found at Loudun. The key was evidently engraved in Roman times. The axe was a funerary amulet, and the purpose of the key was to open the portals of the other world to the dead.

The God Alisanus.—In *B. Soc. Ant. Fr.* 1917, pp. 214-216, J. TOUTAIN discusses the character of the god Alisanus, but is unable to reach a definite conclusion. He may have been a tree god (*cf. alisa* or *aliso*, a Ligurian or Germanic word for the beam-tree), or a river god. Many streams in France have names derived from Alisantia, Aliso, or Alisa.

Rafts of Inflated Skins in Roman Gaul.—In *B. Soc. Ant. Fr.* 1918, pp. 120-122, A. HÉRON DE VILLEFOSSE publishes a note of J. Formigé pointing out that rafts resting on inflated skins were much used by the Romans especially in the navigation of the rivers of Gaul. The skins were intended to protect the raft from shock when striking against rocks or the shore, and not primarily for buoyancy.

The Industrial Geography of the Lower Loire.—In *R. Arch.*, fifth series, IX, 1919, pp. 234-273 (3 figs.), LÉON MAITRE describes and discusses in considerable detail the numerous traces of ancient (chiefly or altogether Roman) mining operations in the region of the lower Loire. They consist of mines, forges, fortified places for habitation or refuge, and various utensils.

SWITZERLAND

Notes on Antiquities in the Museum of Art and History at Geneva.—In *R. Arch.*, fifth series, IX, 1919, pp. 98-142 (30 figs.) is a series of notes by W. DEONNA supplementing the catalogue of the Greek and Roman sculptures. The numerous objects described include statuary and reliefs of marble, bronzes, and terracottas. In connection with some sarcophagi the author discusses the solar significance of the so-called *clipeus*. He also maintains that the arms often represented on sarcophagi were intended to protect the deceased against

perils after death. The chthonic origin and significance of the bust form is also asserted.

NORTHERN AFRICA

Questions of Carthaginian Topography.—In *R. Arch.*, fifth series, IX, 1919, pp. 277–337 (10 figs.), L. CARTON discusses various questions of Carthaginian topography, dividing his discussion under the following heads:—Exploration (giving the reasons for his confidence in his own conclusions), The Site (especially the changes wrought by natural causes), The Primitive Citadel (early walls on the peninsula), The City (at Bordj Djedid), Great Carthage (the encircling fortifications, the suburbs of Megara, and the harbors). Under each head many details are discussed. The views of Gsell, when they are accepted, are not discussed, but any views of Gsell or others which are not accepted are controverted by the evidence of existing remains and by argument.

The Neo-Punic Inscription of Bir-Tlelsa.—In *R. Arch.*, fifth series, IX, 1919, pp. 179–182, CH. BRUSTON reprints and discusses the neo-Punic inscription from Bir-Tlelsa, hitherto best published by Dussaud (*B. Arch. C. T.* 1914, p. 619). New interpretations are in line 3, “the altar of the victims with which (is) the wheat of the cake which (is) in the name of Melkarth,” and slightly later, “likewise Akanaksalim (or Akanaksilam), son of Arim, has renewed and consecrated it with them.”

The Date of the *Thermae Aestivales* at Thuburbo.—In *B. Soc. Ant. Fr.* 1917, pp. 202–203, A. MERLIN shows that the dedicatory inscription from the *thermae aestivales* at Thuburbo proves that they were finished in the year 361 by a certain Annius Namptoius *jurisconsultus, magister studiorum*, i.e. a professor of law.

The Vicarius in Africa.—In several Latin inscriptions found at different sites in Northern Africa mention is made of an official referred to as *agens pro praefectis*, or *agens vice praefectorum praetorio*, otherwise known as *vicarius*. In *B. Soc. Ant. Fr.* 1917, pp. 205–211, C. PALLU DE LESSERT shows that he had a position inferior to the proconsul. There was clearly a division in authority between these two officials, but the duties which belonged to each have not yet been determined.

The Epitaph of a Christian Soldier.—In *C. R. Acad. Insc.* 1919, pp. 142–149, P. MONCEAUX publishes a Latin epitaph of a soldier found at Mdaourouch (Madaura) in 1918. It is interesting for its date (the fourth century A.D.), and for the emphasis laid on the man's belief in the Catholic faith. He is described as *Cat(h)olic(a)e Legi f(i)delissima mente inserviens*.

EARLY CHRISTIAN, BYZANTINE AND MEDIAEVAL ART

GENERAL AND MISCELLANEOUS

The Life of Saint Augustine.—HERBERT T. WEISKOTTEN has published as his doctor's dissertation at Princeton an edition of the *Sancti Augustini Vita* by Possidius. After an introduction, in which he includes an account of the manuscripts, the writer gives the Latin text and a translation of the *Life* on

alternate pages accompanied by a full critical apparatus. At the conclusion twenty-two pages of explanatory notes are added. [*Sancti Augustini Vita scripta a Possidio Episcopo*. By HERBERT T. WEISKOTTEN. Princeton, 1919, University Press. 174 pp.; map.]

The Christian Monuments of Salonica.—In *R. Arch.*, fifth series, IX, 1919, pp. 1-36 (8 figs.), LOUIS BRÉHIER reviews a recent great work on the churches of Salonica and their adornment (Ch. Diehl, M. Le Tourneau, H. Saladin, *Les monuments chrétiens de Salonique*. Paris, 1918, E. Leroux). This work is of especial importance now that the church of St. Demetrius has been almost completely destroyed. The admirable mosaics of this church, remarkable for their realism, expressiveness, and picturesque details, were discovered in 1907 under a coating of paint and are now preserved in the excellent photographs and watercolors made by Le Tourneau and published in the book under discussion and the accompanying album. In the review, as in the book, other churches of Salonica are described and the importance of the city as a centre of art and civilization is emphasized.

The Eulalios Problem.—In *Rep. f. Kunstw.* XXXIX, 1916, pp. 97-117, 231-251 and XL, 1917, pp. 59-71, 185, N. A. BEES investigates the problem of the connection of the artist Eulalios with the mosaic decoration of the church of the Apostles at Constantinople. A description of the mosaics of the destroyed church is given by Constantine Rhodius (tenth century) and another by Nicolaus Messarites (end of the twelfth and beginning of the thirteenth century). Neither of these mentions the author of the mosaics, though opposite the passage in which Messarites says that among the guards of Christ's grave the famous wall-painter represented himself, a copyist or reader has written "Eulalios" as the name of the famous artist. It has been contended by various historians that Eulalios, who is known also from other literary references, carried out the mosaic decoration either in the time of Justinian or at least before the period in which Constantine Rhodius wrote. The present study argues that both these datings are incorrect. Nicephorus Callistus Xanthopoulos (thirteenth to fourteenth century) not only mentions definitely one composition in the church of the Apostles—the Pantocrator—as the work of Eulalios, but also writes of a work by him which was apparently executed for the Archangel Cloister founded by Emperor Manuel Comnenus (1143-1180); and Theodorus Prodromos mentions another which was done for the cloister founded by Johannes Comnenus. The latter cloister, in which Eulalios worked, was completely built in the twelfth century, so that Eulalios must naturally have been a twelfth century artist. This conclusion is further substantiated by the discrepancy that exists between the accounts by Rhodius and Messarites. To be sure, both accounts, as they have come down to us, are somewhat fragmentary. But they are sufficiently complete to show that the later writer is describing a new arrangement: he describes some compositions in quite a different way from that in which Rhodius describes the same subjects, and he includes some things that were clearly not in the church when the earlier narrator wrote. Heisenberg's assertion that the Eulalios mosaics must belong to the sixth century because in the posticonoclastic period self-portraits of the artist are unthinkable in religious pictures in church decorations is disproved by numerous examples. The conclusion, then, is that the mosaic decorations of the church of the Apostles were restored,

changed, and added to in the twelfth century and that Messarites was probably called upon by the Patriarch Johannes Camateros—presumably with the purpose of drawing more pilgrims to the church—to describe their splendid appearance. The only compositions in the church that can be documentarily assigned to Eulalios are the Pantocrator and the Women at the Grave. But others, from the description of Messarites, can be very definitely attributed to him.

Early Byzantine Silk-weaving.—A discussion of the origin of the drawloom used in making early Byzantine silks is given by J. F. FLANAGAN in *Burl. Mag.* XXXV, 1919, pp. 167–172 (pl.; 7 figs.). The invention of this device, which

was as important for the weaver's art as was the printing press for the printer's art, has generally been believed to have been made by Chinese weavers and passed to the West by Sassanian Persians. However, there is not sufficient ground for this belief; while in Egypt during the fifth century, which immediately preceded the time in which the early Byzantine silks are believed to have been produced, there is plenty of evidence that the drawloom principle was known and used for a weave very similar to that of the early Byzantine silks; examples in linen and wool have been found in Egyptian tombs. It would seem, then, that the tradition was carried from West to East rather than from East to West.



FIGURE 2.—CHRIST ENTHRONED:
ST. SERNIN, TOULOUSE.

The Sources of Romanesque Sculpture.—

The importance of the study of illumination for the understanding of mediaeval styles of sculpture is shown by C. R. MOREY in *Art Bulletin*, II, 1919, pp. 10–16 (10 figs.), where he traces the influence of manuscript illumination upon the first two phases of Romanesque sculpture. The first of these phases is the primitive (first quarter of the twelfth century), which manifests itself in the early works of Burgundy and the valley of the Loire and is best known in its Italian variant, under the name of Lom-

bard. The second is the baroque (second third of the twelfth century), the prevailing styles of which are those of Languedoc and Burgundy. The principal alternative theory for the source of Romanesque sculpture would derive it from ivory carving. But aside from the fact that important characteristics of the sculpture are not found in the ivories, these ivories themselves are manifestly derived from miniatures. A most obvious illustration of this derivation is furnished by a comparison of a plaque at Zurich with the illustration of Psalm XXVII in the Utrecht Psalter: the ivory is an abbreviated replica of the Utrecht drawing. One of the most distinguishing features of the sculpture, that is lacking in the ivories, is the use of double lines which divide the drapery



FIGURE 3.—SAINT MARK FROM A CAROLINGIAN MANUSCRIPT.



FIGURE 4.—ILLUMINATION IN THE CODEX EGBERTI.

into overlapping folds, as in the Christ on the choir screen of St. Sernin at Toulouse (Fig. 2). This feature does appear, however, in illuminations; a good example is the evangelist Mark in a late Carolingian manuscript of the school of Tours (Fig. 3). This figure also illustrates many of the eccentricities that are taken over both by ivories and by sculpture in its second Romanesque phase: the undulating hair, whirling draperies, distorted body, etc. Another clear illustration of the derivation of this style from the linear manuscript style of France and England is seen in the comparison of the prophet of Souillac with the angel locking the gate of Hell in the *Liber Vitae*. The source of the Lombard style of sculpture, which, in contrast to the linear style of Languedoc and Burgundy, is plastic in quality, is to be sought in the manuscript illumination which developed in the valley of the Rhine. Its peculiarities—lack of



FIGURE 5.—GROUP FROM THE CATHEDRAL: MODENA.

movement, flatness of planes, and heaviness of proportions—result from its attempt to follow proto-Byzantine models. The Codex Egberti gives a good example of this style (Fig. 4), which we see taken over in such sculpture as that representing the story of Genesis in Modena Cathedral (Fig. 5).

A Coptic Pyxis.—In *Mh. f. Kunstw.* XII, 1919, pp. 81–87 (6 figs.), S. POGLAYEN-NEUWALL writes on a Coptic pyxis in the Morgan collection at the Victoria and Albert Museum. Its special interest lies in its subject, the representation of the Women at the Tomb. An iconographical study places the piece in a group of pyxes of Egyptian origin related to diptychs and ampulae, already known, in which narrative and formal characteristics balance each other. The stylistic treatment dates the work in the sixth or seventh century.

The Bornholm Fortress-Churches.—Churches erected in the twelfth and thirteenth centuries on the Danish rock island of Bornholm are described by W. BOMBE in *Mh. f. Kunstw.* IX, 1916, pp. 92–102 (3 pls.). Their peculiar plan was probably determined in large part by the fact that they were frequently called upon to serve as places of defence as well as churches. They are built of rough stones and have, in some cases, interesting fresco decorations. The Nylars church, dedicated to St. Nicholas, is in execution the finest. The plan of this church coincides in general with that of the others on the island. It is a large, round, three-storied building, with an oval choir terminating in a semi-circular apse, a later weapon-house, and a separate bell-tower. In the centre of the interior of the first story is a round pillar with simple base and cornice. Similar pillars are in the second and third stories. The frescoes in

this church are among the earliest in the churches of the island, probably dating from the first half of the thirteenth century. The figures are quite Byzantine in style, though naïve attempts to vary their expressions are evident. The outside influences were probably brought by wandering monks.

ITALY

S. Antonino at Piacenza.—The numerous vicissitudes of the famous basilica of S. Antonino at Piacenza are traced by G. U. ARATA in *Rass. d'Arte*, XIX, 1919, pp. 37-68 (47 figs.). Though the history of the original church begins much earlier, the oldest parts of what stands today date from 1014, when the church was consecrated, after a rebuilding, under the bishop Sigifredo (997-1031?). To this period belongs the fundamental plan of the church, which has not been essentially altered in spite of the later additions and mutilations which have quite changed the general appearance. This plan is the most interesting feature of the church. The construction of the lantern tower is placed upon eight columns, situated between the piers at the four angles. While these columns repeat the octagonal shape of the upper part of the tower, the arrangement has the disadvantage of obstructing the opening of the central nave and the whole crossing of the transept, over which the tower rises. All the weight, then, rests on the eight columns, relieving the piers at the angles of their function of support. Lantern towers beyond the Alps, as well as in Italy, that show closest likeness to this one, as, *e.g.*, those at Issoire (Puy-de-Dôme), Orgeval (Seine-et-Oise), and Chiaravalle (Lombardy), have only the four piers. The interior of the church of S. Antonino, as well as the exterior, was for a long time left with little decoration. In the thirteenth century the north façade of the transept was changed. The elaborately worked portal gives evidence of the participation of Piacenza at this time in the important sculptural development that was taking place in Emilia. The stylistic affinity between the doors of the cathedrals of Ferrara, Modena, Verona, Lodi, and this one at Piacenza is quite clear. There is not, of course, the same interest in the paintings of the church. For, while Romanesque sculpture was in the midst of an important evolution at this time, painting was clinging close to the old Byzantine traditions, and the few remains of paintings in the interior of S. Antonino indicate that there was once here just the same arrangement of compositions and the same type of figures that are to be found not only in Emilia, but also in such a church as S. Maria in Cosmedin at Rome. To the fourteenth century belongs the addition of the vestibule, called the "Paradiso," designed and carried out by the architect, Vincenzo Vago, in 1349-50. From this time forward there were many changes in the church, but they are *ritardato* degenerations, based on fourteenth century style, and baroque extravagances. Finally, in the middle of the nineteenth century the interior suffered a complete devastation, when a false and odious pseudo-Gothic decoration was applied. The prototype of the church offers, in its unusual plan, an interesting problem. That it should have come either from Germany or France is out of the question, for churches in these countries that show closest parallels belong to a later period, and besides, as has already been pointed out, the plan at the base of the tower is entirely unique.

The Abbey of S. Angelo at Raparo.—In *Boll. Arte*, XIII, 1919, pp. 57-59 (pl.), G. PALADINO describes the traces of the activities of Byzantine monks

at Raparo in Basilicata in Southern Italy. A cave, with beautiful stalactite formations gives access to a number of cells cut out of the tufa, which, from a painting visible on one of the walls, are shown to have been inhabited by monks of the order of St. Basil. The painting represents a monk in the robe of that order kneeling before St. Michael. The appearance of the cells and of the painting points to the eleventh century as the period of their origin. Above the cave rise the ruins of the church of S. Angelo (Fig. 6). It is Byzantine in form, but no analogous combinations of a single nave with barrel vault without double arches and with a central cupola are found except in some rural chapels of the Morea. The frescoes that once covered the walls have disappeared almost entirely. The few traces of figures of saints that remain permit the attribution of the work to the monastic Byzantine school of the fourteenth or



FIGURE 6.—CHURCH OF SANT' ANGELO: RAPARO.

fifteenth century. To the same period belong two panels representing St. Peter and St. Paul, which have been removed to the cathedral of S. Chirico, and also an altar pala conserved in this church.

The "Maestro di S. Francesco."—In *Rass. d'Arte*, XIX, 1919, pp. 9-21 (18 figs.), R. VAN MARLE contributes to the knowledge of the artistic personality christened by Thode on the grounds of a portrait of St. Francis in S. Maria degli Angeli in Assisi the "Maestro di S. Francesco." But the author of this painting has been constantly confused with others, particularly with Giunta Pisano. A careful study of the characteristics of the St. Francis master as evinced in the portrait of St. Francis leads to the attribution to him of a number of other works, most important among them: the Crucifixion (which offers good material for comparison with Giunta Pisano's Crucifixion in Pisa), Descent from the Cross, Deposition, St. Anthony of Padua, St. Francis, and St. John the Evangelist—all in the Perugia gallery—and especially the early frescoes in the Lower Church of St. Francis at Assisi. These mutilated frescoes,

which from the time of Vasari have always been attributed to at least two different hands, all show the characteristics of the master under discussion and must have been done by him and his assistants. The "Maestro di S. Francesco" apparently derives from the Pisan school (not from that of Urbino, as Thode thinks); he is following the Byzantine tradition in his solemn, elongated figures, but he evinces a strong individuality and an unusual ability for realistic, human representation of dramatic motives.

SPAIN

S. Maria de Naranco.—The building of Naranco at Oviedo in Spain has for a long time been explained as a church erected in 848 by Ramiro I in honor of the Virgin Mary. But when one interprets the inscription of that year correctly and examines the plan of the building as it is without the later additions, it becomes evident that it was not a church at all, but that we have here a fine example of the old halls of the kings sung in Beowulf and elsewhere. It was probably built in the middle of the eighth century as the first building of the newly strengthened kingly power of the West Goths, perhaps under Alfonso I (739-757). After a cycle of nearly a thousand years, at the end of the sixteenth century, the famous Neues Lusthaus, built by the Duke of Württemberg, presents again the old type of Germanic king's hall. It is true in nearly every detail to the scheme that we find in Naranco. (A. HAUPT, *Mh. f. Kunstw.* IX, 1916, pp. 242-263; 3 pls.)

FRANCE

A Manual of French Archaeology.—M. CAMILLE ENLART has issued the first volume of a new and revised edition of his *Manuel d'archéologie française*. The increase in the amount of material available has been so great since the work appeared fifteen years ago that the author has found it necessary to enlarge the first part, which is devoted to *Architecture religieuse*, to two volumes. In the present volume there is a full bibliography given, and then follows a discussion of definitions and principles, the Latin and Merovingian period, the Carolingian period, old Merovingian and Carolingian baptisteries, and finally the Romanesque period. The author's plan is to produce eventually a sort of encyclopaedia of what might be called the plastic arts of the Middle Ages. [*Manuel d'archéologie française depuis les temps mérovingiens jusqu'à la renaissance*. I. *Architecture religieuse*. Première partie: *Périodes mérovingienne, carolingienne et romane*. Par CAMILLE ENLART. Paris, 1919, A. Picard. cviii, 458 pp.; 225 figs. 8vo. 18 fr.]

Manuscripts with Miniatures at St. Gall.—In *R. Arch.*, fifth series, IX, 1919, pp. 225-233 (4 pls.), JEAN EBERSOLT publishes nine miniatures contained in manuscripts (Nos. 338, 340, 341, and 376) of the tenth and eleventh centuries in the monastery of St. Gall. They represent scenes of the evangelistic cycle. Some of them are Byzantine in type, while others show the influence of Syrian and Palestinian models, an influence which doubtless reached St. Gall through Italy. The direct intercourse between Germany and Constantinople in the tenth century is well known. St. Gall was a centre of Byzantine culture, "which doubtless exercised influence in the Rhine country.

A Merovingian Lamp.—In *R. Arch.*, fifth series, IX, 1919, pp. 274-276 (3 figs.) LÉON DE VESLY publishes a stone lamp formerly in the collection of the

late M. Goujon at Notre-Dame du Vaudreuil. It is said to have been found on the site of the palace of Queen Fredigonde at Vaudreuil and is attributed to the seventh century. The lamp is open, consisting of a basin (external diameter 0.06 m., internal diameter 0.039 m.) and a channel (0.012 m. long) for the wick. The decoration of the edges consists of triangular cuttings interrupted by three imitations of ligatures or fastenings, so placed as to suggest a cross.

The Monuments of the Popes at Avignon.—In *Mh. f. Kunstw.* XI, 1918, pp. 145-171 (7 pls.), E. STEINMANN writes on the destruction of the grave monuments of the popes at Avignon. It is only from documents, engravings, and a few remains that we can get any idea of their original splendor.

BELGIUM AND HOLLAND

Some Enamels of the School of Godefroid de Claire.—Using, in a large measure, the characteristics which have been established by v. Falke and Frauberger for the work of Godefroid de Claire, H. P. MITCHELL assigns a number of important pieces of enamel to this master and to his school (*Burl. Mag.* XXXIV, 1919, pp. 85-92, 165-171, and XXXV, 1919, pp. 34-40, 92-102, 217-221; 11 pls.; 2 figs.). The work on the Stavelot triptych, in the collection of Mr. J. P. Morgan, New York, which is a well-attributed work of Godefroid's early period, serves as principal touchstone. The twelfth century altar cross in the Victoria and Albert Museum shows so much divergence from the Stavelot triptych and so much variety in itself as to place it as a school piece rather than as by Godefroid himself. But a beautiful altar cross in the British Museum, decorated, like the example in the Victoria and Albert Museum, with Old Testament types of the Crucifixion, shows the handiwork of the master, not of pupils. If 1150 is taken as the date of the Stavelot triptych, the cross may reasonably be dated about 1155. Still further development of style is evinced by three plaques, in charge of the trustees of the late Lord Llangatlock, representing Alexander the Great's celestial journey, Samson and the lion, and a man riding on a camel, and also by two others, in the collection of the late M. Martin Leroy, Paris, which apparently belong to the same series and which represent a centaur hunting and a man killing a dragon. It is believed that these may have been associated with the double plaque in the British Museum, which portrays the Bishop Henry of Blois and censuring angels, in forming the decoration of the structure supporting a shrine, probably the shrine of St. Swithun. The style of the work, together with the known history of Henry of Blois, would date these enamels about 1160-65. They are very clearly from Godefroid's own hand and were probably executed in England.

GERMANY

The Abbey Church in Berchtesgaden.—In *Mh. f. Kunstw.* XI, 1918, pp. 321-340 (4 pls.), R. WEST publishes a study of the Romanesque cloisters of the abbey church in Berchtesgaden. Many styles can be studied in the church today: Romanesque, early Gothic, late Gothic, Renaissance, Baroque, and modern. It is the earlier work that is here studied, the first two periods of building. These fall in the early twelfth and late twelfth century. To the earlier period, 1125-1139, when Eberwein was provost, may be assigned

some extant parts of the cloisters and some of the sculptured animal decorations. Italian sculptors were probably brought for the latter work. The influence of the Freising crypt, which in turn felt strongly North Italian influence, is seen in the remains from the late twelfth and early thirteenth centuries in the cloisters.

Baptismal Fonts of Schleswig.—In *Mh. f. Kunstw.* XII, 1919, pp. 113–124 (11 figs.), K. FREYER distinguishes three types of stone relief work of about 1200 in Schleswig which throw much light upon early Teutonic art and character. These three are not to be distinguished as regards provenance and dating; they are just three tendencies, and two or more may be shown on a single monument. The first is designated as primitive, the individual figures being treated in a very formal manner and without relationship to each other. The second is Christian; here there is more interplay of figures and they are given a gentle movement. The third is most interesting. It is the Germanic type; while the symbolism of the subjects represented is Christian, the whole spirit is Germanic. A firm will, but an equally unbending fatalism, speaks in all the work of this class. It was the second, the Christian, which was developed in the Middle Ages; the third type gradually died out.

RENAISSANCE ART

GENERAL AND MISCELLANEOUS

Mythology and Ancient History in Italian Paintings of the Renaissance.—In *R. Arch.*, fifth series, IX, 1919, pp. 173–178, ROBERT C. WITT supplements the list given by Reinach (see *A. J. A.* XIX, 1915, p. 494) of subjects from mythology and ancient history represented in Italian paintings prior to 1580. The supplementary list includes pictures which are classified under twenty-three of the chief headings of Reinach's list.

Ancient Subjects in Tapestry.—In *R. Arch.*, fifth series, IX, 1919, pp. 48–63, L. ROBLLOT-DELONDRE continues (see *A. J. A.* XXII, 1918, pp. 226 f.; XXIII, 1919, p. 195) his list of ancient subjects represented in tapestries. In this instalment are included Triumphs, Honors, various allegorical figures, festivals, combats, five pieces entitled Poesies, a series called *Fructus Belli*, grotesques or playing children, Months, Seasons, and several metamorphoses. These are Flemish and Italian works, chiefly of the last part of the fifteenth or the early part of the sixteenth century.

Renaissance Influence in Northern Architecture.—Under the title *Studier i Nordisk Renässanskonst. 2. Östeuropeiska Stildrag i Nordisk Renässansarkitektur (Skrifter utgifna af Kungl. Humanistiska Vetenskaps-Samfundet i Uppsala, 18, 2. Uppsala, 1917, Akad. Bokhandeln. 167 pp.; 8 pls.; 60 figs.)* AUGUST HAHR shows how the influence of the renaissance passed from Northern Italy through the Tyrol, Austria, Hungary, Bohemia, Poland, and Northern Germany into Sweden. Sigismund I and Bona Sforza invited Italian architects to Cracow in the sixteenth century and their work had an important bearing not only upon the development of architecture in Poland, but as far as Sweden. The arcaded court in the castle at Cracow was something new and was imitated freely. Arcades were used for decorative effect even in private houses. Renaissance influence is also to be seen in the treatment of

the roof, the use of battlements, and the employment of painted stucco for interior decoration. Porcelain tiles made in Poland, Bohemia, Silesia, and Austria imported into Sweden contributed to the same end, as did weapons and textiles. In the second part of his work he makes a special study of the arcades in the castle at Brieg.

The Arconati-Visconti Gift to the Louvre.—In *R. Arch.*, fifth series, IX, 1919, pp. 397–400 (from the *Débats*, April 15, 1919), ANDRÉ MICHEL briefly describes the gift of the Marquise Arconati-Visconti to the Louvre. The donation was signed in March, 1914, but could not be accepted until November 16, 1916. It was first exhibited April 14, 1919. Among other things the collection contains the tondo “The Infant Jesus and John the Baptist,” by Desiderio da Settignano; two “pages” in stone, by Antonio Rizzo; several other interesting pieces of Italian and French sculpture; and a number of important paintings, including the portrait of Bianca Maria Sforza, probably by Ambrogio de Predis; two portraits, doubtless by Bastiano Mainardi; a Madonna, probably by Botticini; another by Luini; a young woman, by Jacob van Utrecht; an annunciation by Bartholomeus Zeitblom; and several interesting portraits. The furniture, wood carvings, ivories, enamels, and other objects in the collection are of great beauty and interest. An illustrated catalogue, by G. Migeon and J. Marquet de Vasselot is published by Hachette (Paris, 1917).

ITALY

Early Italian Pictures.—In *Art in America*, VII, 1919, pp. 189–198 and VIII, 1919, pp. 7–14 (8 figs.), R. OFFNER continues his discussion of Italian paintings at the New York Historical Society and elsewhere. Two Crucifixions belonging to the Society are attributed, one to the school of Duccio—Berenson had suggested that it was by an imitator of “Ugolino Lorenzetti,”—the other to Giovanni da Milano. The former is to be dated soon after 1311 and the latter about 1360. A badly worn little triptych representing the Madonna and Saints is shown to be by “Ugolino Lorenzetti” and to belong to the decade between 1340 and 1350. Two trefoils, with saints, serving originally as polyptych gables, have been attributed to Giotto, but Mariotto di Nardo is undoubtedly their author, while they must be dated about 1400. Their closest relationship is to the saints on the frame of the Mariotto altarpiece formerly at the Hatton Garden Church in London. A Florentine birth-plate dated 1428, with a representation of the Birth of the Baptist as principal scene, defies definite attribution. But its painter felt the influence of both Masaccio and Uccello. The *stemmi* on the reverse have not been identified. A second birth-plate, however, with the Triumph of Fame as principal subject (Fig. 7), has the *stemmi* of the Medici and Tornabuoni and was no doubt painted to commemorate the birth of Lorenzo the Magnificent. The older attributions to Piero della Francesca and to the school of Domenico Veneziano cannot be sustained. The painter was as much indebted to Uccello as to either of these masters. Finally, a small Virgin belonging to Dr. Coomaraswamy is a product of the workshop of the Gerini. The Virgin must be by Niccolò di Pietro Gerini himself; the rest of the picture, the saints and angels at the sides, betray the timid hand of an assistant. The date is uncertain, but probably lies between 1375 and 1390.

The Lady with the Ermine.—Some new evidence is given by H. OCHENKOWSKI in *Burl. Mag.* XXXIV, 1919, pp. 186-194 (2 pls.) for the theory that the Lady with the Ermine in the Czartoryski Gallery, Cracow, is by Leonardo and represents Ludovico il Moro's mistress, Cecilia Gallerani. The animal that occurs in the picture, which is not a weasel as some have thought but an ermine, is a symbol which a note in a Leonardo manuscript indicates as having been connected with Ludovico; hence its appropriateness here. It seems possible to recognize in La Belle Ferronière a portrait of Cecilia by Boltraffio and for the head of the Virgin from the Adoration of the Magi and the head of the angel in Turin the same model seems to have been used by Leonardo. Comparison of the technique of the painting in the Czartoryski picture with



FIGURE 7.—TRIUMPH OF FAME: NEW YORK HISTORICAL SOCIETY.
(*Art in America*)

that in works by Ambrogio de Predis indicates that the latter was Leonardo's assistant in the painting of the Gallerani portrait. The work is to be dated about 1484. For reasons which are similar in a few points to those here given E. MÖLLER in *Mh. f. Kunstw.* IX, 1916, pp. 313-326 (2 pls.) supports the attribution to Leonardo and the identification of the subject as Cecilia Gallerani. The accurate modelling of the hand and of the ermine are two important points in favor of Leonardo's authorship.

Two More Pictures of the Mona Lisa.—In *Mh. f. Kunstw.* XI, 1918, pp. 1-14 (4 pls.) E. MÖLLER develops his theory that we have in the Leonardesque drawing of a woman's head in the Uffizi and in Leonardo's cartoon of St. Anne representations of the Mona Lisa. It seems highly probable that the Uffizi drawing, which is clearly a study from nature, was done by Salai in

Leonardo's studio in about 1505 while the Mona Lisa was sitting to Leonardo. This drawing settles certain disputes as to Leonardo's portrait: it proves that the latter is not a creation of the artist's brain but is a faithful portrait and that the sitter *did not* have eyebrows. When the same subject is recognized in the representation of the Virgin in the St. Anne drawing, we have sufficient proof that this cartoon belongs to Leonardo's Florentine period, to about 1503, when he began the work on the portrait. We are further led to the conclusion that Leonardo arrived at a new ideal of the Madonna through the Mona Lisa.

Leonardo's School at Milan.—In *Mh. f. Kunstw.* XII, 1919, pp. 257-278 (18 figs.), W. SUIDA studies the pupils of Leonardo in Milan. The names of some of these are unknown and they can only be referred to as painters of certain works which show distinctive characteristics. Around these can be grouped other paintings obviously by the same hands, so that quite a definite group of artists following the leadership of Leonardo is described. Among these are, besides Ambrogio de Predis: Francesco Napoletano, Vincenzo Civerchio, Bernardino de'Conti, the painter of the Pala Sforzesca, the painter of the Circumcision of Christ of 1491, the painter of the Seminario picture in Venice, and the painter of S. Eufemia.

Leonardo as an Anatomist.—In *Burl. Mag.* XXXIV, 1919, pp. 194-203 (3 pls.), W. WRIGHT comments on Leonardo's researches in anatomy and traces the history of his manuscripts dealing with the subject. Though he was kept from making important discoveries in anatomy because he did not overcome the two ancient misconceptions regarding the contents of the arteries and the circulation of the blood, he could have afforded much assistance to later students had his work been known; for his methods were in almost every way thoroughly modern. Not only were his observations, as recorded in his drawings, marvelously accurate, but he made much use of comparative anatomy and other important avenues of research.

Leonardo da Vinci in France.—In commemoration of the centennial of Leonardo's death P. GAUTHIEZ in *Gaz. B.-A.* XV, 1919, pp. 113-128 (pl.; 5 figs.) writes on the last years of the artist, which were spent in France. Leonardo's home here, the Chateau of Cloux or the modern Clos-Lucé, is described and reproduced, and one is enabled to grasp something of the fitness of his quiet life in these picturesque surroundings. His last years were spent largely in planning such improvements for the surrounding country as a great canal and in designing decorations for important royal festivities. Not the least important result of the great artist's sojourn and demise in France was the inheritance by that country of the Mona Lisa, which Leonardo brought with him when he came from Italy.

The Last Days of Leonardo da Vinci.—In the *Journal des Débats*, May 3, 1919 (reprinted *R. Arch.* IX, 1919, pp. 408-411), ANDRÉ MICHEL corrects some statements of Eugène Müntz and some current misconceptions relating to the last days of Leonardo at Amboise in Touraine; for instance, Francis I was not present, but was at Saint-Germain.

The Sistine Ceiling.—In *Mh. f. Kunstw.* XII, 1919, pp. 1-7 (9 figs.), J. GANTNER discusses the development of Michelangelo's plan for the Sistine ceiling decoration with the conclusion that the sketch of the plan belonging to Emile Wauters, Paris, is later than that in the British Museum and that Wölfflin's explanation of the discrepancy between the parts of the decoration is

the correct one, viz., that the three Noah scenes are the fragment of an older project, which was given up when the scale of the figures proved itself insufficient.

Pictures of Vittoria Colonna.—In *Mh. f. Kunstw.* X, 1917, pp. 381-384 (2 pls.), E. SCHAEFFER writes on extant portraits of the famous Vittoria Colonna, Marchesa di Pescara. These consist of medals, a crudely worked wood engraving from the 1540 Venetian publication of the *Rime della Diva Vittoria Colonna de Pescara*, and a painting by Altissimo, which is a copy of a picture, now lost, that once hung in the museum of Paolo Giovio at Como. The characteristics of the poetess portrayed in these portraits are found also in a picture of a seated woman in the painting gallery of the Palazzo Spada at Rome, where it is attributed to Giorgione! Since the history of the picture is not known to the author of the article, no definite conclusions can be arrived at, but it seems possible that this may be a representation of Vittoria by a sixteenth century artist of the Roman school.

The "Madonna Sacchetti."—The little known painting of the Madonna and Saints formerly in the Villa Isola, owned by Colonel Sacchetti is published by W. BIEHL in *Mh. f. Kunstw.* IX, 1916, pp. 237-241 (pl.). It has been attributed to Fra Bartolommeo, and its relationship to authentic works by that master in the period 1509-12 is so close that it must have been painted at about this time in his studio and under his supervision. Certain weaknesses indicate the hands of assistants and pupils, however. The technique and the types of figures point to Albertinelli, while the architectural setting may have been put in by Fra Paolino.

Francesco di Giorgio.—Further study of the Siense master, Francesco di Giorgio, by P. SCHUBRING in *Mh. f. Kunstw.* IX, 1916, pp. 81-91 (5 pls.) indicates that rather than estimating the artist too highly, earlier writers have not fully appreciated his worth. In versatility he is to be compared to Alberti and Leonardo. He has left wide proof of his appreciation of the antique, of his work in painting, sculpture, and bronze-casting, and of his studies in architecture. He was most able in the field of sculpture, as is evidenced by the fact that some of his reliefs have been attributed to such artists as Verrocchio and Leonardo. Additional proof is here given for the attribution to Francesco of four much disputed bronze and stucco reliefs, the peace tablet in S. Maria del Carmine in Venice, the Flagellation in Perugia, the so-called Discord in London, and the Judgment of Paris in the Dreyfuss collection in Paris. These reliefs show distinctive Siense characteristics and some of them offer striking parallels in architectural setting to paintings by Francesco.

Francesco di Giorgio.—In *Z. Bild. K.* XXVIII, 1916-17, pp. 63-69 (7 figs.), G. F. HARTLAUB discusses Francesco di Giorgio as a painter (his sculptural work will be dealt with in a later number). The artist has hitherto been rated too low in this branch of his activity. He did not, as Milanese tells us, give up painting entirely as early as 1476; he is still called a painter in 1502. The contrast between Siense painting and sculpture in general does, to be sure, hold good in his case, *i. e.*, his paintings are less advanced than his sculptures, they cling closer to the traditional Siense style. But he also makes himself at home in the art outside of Siena. The influence of the Umbrians, is clearly seen in some of his paintings. And certain relationships to Botticelli and Leonardo lead one to suspect that he visited Florence, probably about 1472.

Eusebio da San Giorgio.—The publication of documents left by Prof. Adamo Rossi and of an original study of W. BOMBE in *Rep. f. Kunstw.* XXXIX, 1916, pp. 30–51 leads to a new conception of Eusebio da San Giorgio. Besides Raphael, he is the only important artistic personality of the school of Perugino. Since the time of Vasari he has always passed simply as a pupil of Perugino; but investigation proves that he was much more dependent upon Pinturicchio. Endowed with a lively sense of beauty, he sought to rival Raphael. He is correct in his drawing, careful in the execution of his pictures, and gives his slender, graceful figures a dreamy, melancholy expression.

Giorgio da Sebenico.—In *Mh. f. Kunstw.* IX, 1916, pp. 39–45 (2 pls.), D. FREY takes issue with H. Folnesics (see *A. J. A.* XX, 1916, p. 249) in regard to the relationship between Niccolò Fiorentino and Giorgio da Sebenico. The St. Anastasius relief of the Flagellation in the cathedral at Spalato derives from Niccolò's relief in the Kaiser Friedrich Museum in Berlin rather than *vice-versa*. Further, it seems clear that the construction of the vaulting in the cathedral of Sebenico, which makes the latter one of the most important examples of quattrocento architecture, is to be traced back to Giorgio's design, not to Niccolò's; the characteristics of the work, with its mixture of Gothic and Early Renaissance features are not Florentine but come from upper Italy, as may be seen by comparison with certain of Leonardo's architectural drawings.

Exhibition of Florentine Paintings.—In *Burl. Mag.* XXXIV, 1914, pp. 209–219 (4 pls.), C. PHILLIPS writes on the exhibition of Florentine paintings of the fourteenth and fifteenth centuries at the Burlington Fine Arts Club. The most important examples in the collection include the *Salvator Mundi* ascribed to Giotto (owned by Mrs. Jekyll), The Hunt by Uccello (Ashmolean Museum), Scene from the Legend of SS. Cosmas and Damian by Fra Angelico (National Gallery of Ireland), Virgin and Child with Saints by Pesellino (owned by Sir George Holford), and the cartoon of St. Anne and twelve other drawings by Leonardo (Royal Academy of Arts, and Windsor). While some doubt is here thrown upon the ascription of the Giotto *Salvator Mundi* and upon Capt. E. G. Spencer-Churchill's predella piece representing a miracle of SS. Cosmas and Damian, by Fra Angelico, R. FRY (*Ibid.* XXXV, 1919, pp. 3–12; 4 pls.) supports these attributions as well as certain others, *e.g.* the Glasgow Annunciation, which he thinks a fine example of Botticelli in spite of its not being mentioned in Horne's work. An appreciation is also given of Piero di Cosimo's Battle of the Centaurs and Lapiths (owned by Messrs. Ricketts and Shannon) and of Pesellino's cassone panels (owned by Lady Wantage and by the Ashmolean Museum). Another cassone panel which was included in the exhibit, a Florentine school piece, owned by Mr. Henry Harris, is published by T. BORENIUS (*Ibid.* p. 12; pl.). It represents the later part of the story of Saladin and Torello d'Istria in the next to the last novel of the *Decameron*, and is, therefore, the sequel to the panel of which Dr. De Nicola wrote some time ago (see *Burl. Mag.* XXXII, 1918, p. 169 ff.).

Andrea di Francesco Guardi.—A fifteenth century Florentine sculptor, Andrea di Francesco Guardi, whose artistic personality was first identified and characterized by Schubring (1902), is given a number of new works by P. BACCI in *Rass. d'Arte*, XIX, 1919, pp. 1–8 (15 figs.). He, with his brother and step-son and some unknown workers, is found to have been for about a decade in the service of Jacopo III d'Appiano. It was for the latter that

Andrea did the work on the Cappella di Cittadella and the adjacent cistern at Piombino. On the cistern (dated 1468?) are the portraits of Jacopo III, his son Jacopo IV, and M. Battistina di Campo Fregoso. Two important sculptures in the church of SS. Antimo e Lorenzo are also by this master. They are a relief of the Madonna and Child and a baptismal font. The latter is dated 1470 and is an especially good example of Andrea's decorative work.

The Apartment of Innocent VIII.—In *Rass. d'Arte*, XVIII, 1918, pp. 185-199 (19 figs.), G. BERNARDINI in a study of the lunettes in the apartment of Innocent VIII in the Belvedere in the Vatican shows that the common attribution of the decoration of these rooms to Pinturicchio and his pupils is not sufficiently discriminating. Most of the paintings in the rooms have disappeared, and even the lunettes are badly restored. Those in the first room, with pairs of putti at the sides of coats of arms and other emblems, show clearly the art of Pinturicchio and assistants. But in the other two rooms other influences and styles are to be seen. The hand of Raphael was employed upon at least one figure here, a putto which is now in the Gallery of S. Luca in Rome. It has been pointed out that this corresponds exactly to one of the putti in Raphael's Isaiah in S. Agostino in Rome and it has consequently been considered a pupil's copy of the Isaiah putto. But the date of its execution and especially the style of the work establish it as a genuine Raphael. The lunettes with the half figures show many points of likeness to the style of Bramante and to that of Melozzo. The best of them were probably designed by Melozzo himself, while his followers were left to do the rest.

Raphael in the Musée Napoléon.—In *Mh. f. Kunstw.* X, 1917, pp. 9-25 (3 pls.), E. STEINMANN, taking as a point of departure the large collection of paintings by Raphael that was once in the museum of Napoleon, writes on the wholesale appropriation by Napoleon of paintings from invaded territory and of the deplorable restorations that were carried out soon afterward to repair the damages incurred in shipping.

Portrait by Andrea del Castagno.—In *Art in America*, VII, 1919, pp. 227-235 (pl.), R. OFFNER writes an appreciation of Castagno's portrait of a man in the collection of Mr. J. P. Morgan (Fig. 8). The portrait is a supreme example of Castagno's absorbing motive in all his work—dynamic force in the individual. With the exception of works by Donatello and Antonello da Messina, this portrait is the most acute realization of reality in modern times.

Paolo Uccello.—In *L'Arte*, XXII, 1919, pp. 37-42 (3 figs.), M. MARANGONI points out characteristics of Uccello which make previous judgments of him untenable. That he was not influenced by Donatello or by Masaccio is shown by the fact that he is not at all interested in dramatic or realistic treatment. First and last, his studies are geometric. In his Battle piece in the Uffizi one can see the use of geometric lines and forms in faces, hats, weapons, etc. But the present investigation has to do principally with a comparison of the drawing (in the Uffizi) for the monument of the "Acuto" with the fresco of that subject in S. Maria del Fiore at Florence. References of critics—Berenson and Ferri—to this drawing have rather depreciated it and have noted in it no divergence from the fresco; but a juxtaposition of the two leads to a very different conclusion. In the drawing various outlines seem drawn with the compass rather than with the free hand. Everywhere the contour takes a geometrical shape. But in the fresco all the sharpness and crispness of contour, all the

curvilinear lines have been lost, leaving the painting with a much cruder appearance. Since one cannot credit Uccello with such marring of his original design, the blame must rest upon later restoration. When the painting is made more accessible for study than it is at present, it is expected that such restoration can be detected and removed.

A Robbia Note.—In *Rass. d'Arte*, XIX, 1919, pp. 22-32 (pl.; 11 figs.), A. FORATTI studies a few Robbia examples with a view to making a clearer distinction between the characteristics of the members of the Robbia family and

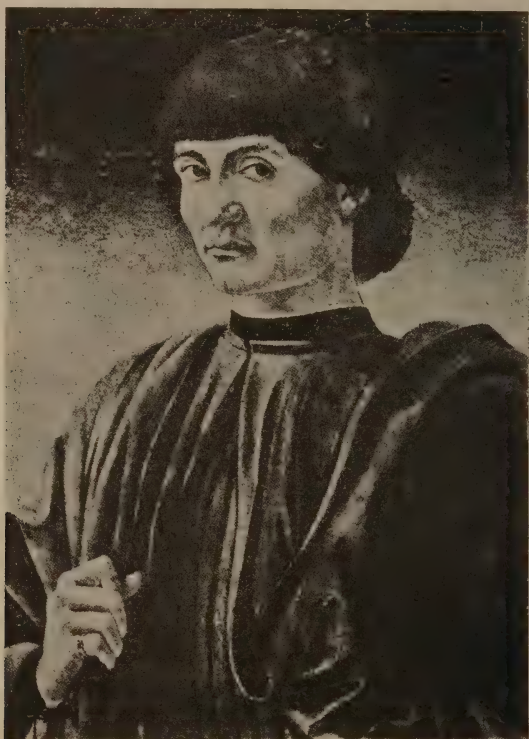


FIGURE 8.—PORTRAIT OF A MAN: CASTAGNO.
(*Art in America*)

their school. The Madonna of the Via della Scala, Florence, which is now generally attributed to Andrea, is more probably a school piece. A survey of the variations of the composition of Madonna and Child in the Pieve Collegiata, where two of the variations may be found, illustrates the fact that it was not in great variety of gestures that Luca excelled but in the fine psychological interpretation of expression. And it was just this that imitators failed to get (cf. the Madonna in the Campana collection in the Louvre, which is a bottega work). There is but little difference in composition between Luca's two little Madonnas in the Pieve Collegiata, the one formerly in Genoa and now owned by

G. Benda in Vienna, and the three replicas of the latter in the Museo Nazionale, Florence, the Kaiser Friedrich Museum, and the Simon collection at Berlin. The only work in which Andrea competes with Luca is the *Madonna del Bertello* in S. Gaetano at Florence. And even here, one can see how, in the attempt to introduce a mystic quality, he falls far short of the appealing impression made by Luca's simple, natural figures. In Andrea's putti three types may be distinguished: in the first he was imitating Luca, in the



FIGURE 9.—MADONNA OF THE CANDELABRA: COLLECTION DEL DRAGO, NEW YORK.
(Art in America)

second he followed a naturalistic tendency, and in the third his interest is manifestly in portrait-like work.

The Madonna of the Candelabra.—In *Art in America*, VII, 1919, pp. 198-206 (4 figs.), A. MARQUAND publishes a study of several stucco and terracotta repetitions of the Madonna between two candelabra. Among these is one belonging to Prince Giovanni del Drago, New York (Fig. 9), one in the Victoria and Albert Museum, London, one from the Gavet collection, Paris (1897), and one in the Berlin museum. These are not copies or casts of one original but

are slight variations from it. Certain of them have been ascribed to Desiderio da Settignano, to Mino da Fiesole, and to the Master of the Marble Madonnas, but a more correct attribution for the original designer seems to be Antonio Rossellino.

A Drawing by Pisanello.—In *L'Arte*, XXII, 1919, p. 8, M. KRASCENINNIKOVA attributes a drawing in the Vallardi collection, No. 110, to Pisanello. The drawing represents three profiles in red chalk. The careful execution of the work, the clear-cut outlines, delicate gradation of chiaroscuro, etc., bear the unmistakable stamp of Pisanello. An especially good example with which to compare this work is the drawing of an unknown man in the Capitoline Museum at Rome, formerly attributed to Giovanni Bellini, and recently, by A. Venturi, to Pisanello.

Domenico Beccafumi.—Since Beccafumi was the Sienese informant of Vasari for his *Vite* and was a close friend of his, it is unlikely that any great work by Beccafumi escaped the biographer. On the basis of the known paintings by the artist, L. DAMI, in *Boll. Arte*, XIII, 1919, pp. 9-24 (16 pls.) analyses the periods of his career. In the first period, 1509-10 to 1518, there is visible in some of his work, e.g. the Stigmatization of St. Catherine, the influence of contemporary Florentine artists, especially of Fra Bartolommeo, who has a large part in determining the types of figures, the draperies, colors, and the attitudes. But in the setting of the scene the inspiration of Perugino is seen. Sodoma and Raphael also have a share in the credit here, the former for the figure of the saint and the latter for an angel. Though he is really not interested in the third dimension, in sculptural effect, Beccafumi shows some Michelangesque influence in this early period. In the second period, however, which falls in the years between 1518 and 1528-30, the Michelangesque features are replaced by a Raphaelesque quality, as far as concerns the modeling of figures. But Beccafumi is so changeable and restless that one style cannot dominate him, and we are not surprised to see the Michelangesque manner in full swing again in the later pavement of the Siena cathedral. The most characteristic feature of Beccafumi's activity is this restlessness and changeableness. He seems to have no definite purpose, no special interest in developing decorative effect, plasticity, spatial construction, or any other definite field of research. The third period (1530-1536), dominated by Raphael, is the best of his career. His decadence sets in about 1536.

S. Andrea on the Via Flaminia.—In *Boll. Arte*, XIII, 1919, pp. 27-29 (4 pls.), Q. ANGELETTI describes the neglected and abandoned but excellent example of architecture, the church of S. Andrea built by Jacopo Barozzi by order of Pope Julius III. The location of the church, on the Via Flaminia, midway between the Porta del Popolo and the Ponte Milvio, was chosen by the pope not only because it was close to his famous vineyard, but also because it was the spot on which, about a century before, Pope Pius II and his court halted when Cardinal Bessarione, returning from Ancona, brought the relics of S. Andrea. There are six pilasters on the façade, which is finished with a tympanum. Above this appears the rectangular form of the building with a cornice, and above all rises the low, round cupola, which in turn is crowned by a similar cornice. In spite of the small size of the building, the effect of the interior is of great spaciousness. The Bolognese artist, Francesco Primaticcio, perhaps with assistants, is responsible for the paintings on the walls.

Antonio Tempesta's Views of Rome.—The birdseye views of Rome drawn by Antonio Tempesta in 1593 have been published by HENRIK SCHÜCK under the auspices of the University of Uppsala as twelve fine photolithographic plates in large folio. The accompanying pamphlet contains a brief historical and bibliographical introduction and descriptions of the individual plates in Swedish. [*Arbeten Utgifna med Understöd af Vilhelm Ekmans Universitetsfond*, 20:B. *Antonio Tempesta's Urbis Romae Prospectus*, 1593, 12 pls., large folio, and *Några Anmärkingar till Antonio Tempesta's Urbis Romae Prospectus*, 1593. Af HENRIK SCHÜCK, Uppsala, 1917, A.-B. Akademiska Bokhandeln; Leipzig, Harrassowitz. 28 pp. 8 vo. 16 kr.; 25 mk.]

BELGIUM AND HOLLAND

Studies in Dutch and Flemish Miniatures.—In *Jb. Kunst. Samm.* XXXII, 1915, pp. 279-342 (21 pls.; 56 figs.), F. WINKLER publishes a series of four studies on northern Renaissance illumination. The first concerns the Prayer Book of Charles the Bold, Imperial Library, Vienna, Cod. 1857. In this splendid manuscript, one of the treasures even of such a collection as the Viennese, the hands of seven illuminators are distinguishable. Only one of these is immediately and easily identified. Folio 51 shows unmistakably the style of W. Vrelant, and can, therefore, be dated in the third quarter of the fifteenth century. Of the other miniatures Master A and Master E had the largest share in the work. The former is wholly unidentified though his work seems the best in the book. He recalls A. Bening and, in fact, the later S. Bening, but cannot be assimilated to either. In style, although remarkably individual, he seems to belong to Bruges and to have worked in the last quarter of the fifteenth century. With Master E we come to the problem of origin more directly. Long ago Weale suggested that this was the book which the magistrate of Bruges presented to the future Charles the Bold in 1466. That manuscript was written, we are told, in gold and silver letters on black parchment as the first 35 folios of this are, though the fact would, of course, not substantiate the identification. More important is the consideration that Charles the Bold, not deeming the gift beautiful enough, did not hesitate to have it further illuminated—at the cost of the donor! The variety of hands in the Viennese manuscript accords with such a history. The court illuminator of Charles, who continued the work on the Bruges gift was Phillipe de Mazerolles. His works have never been certainly recognized but if the identification of Weale can be maintained, we must have him here as Master E, who did most of the illumination. There are some difficulties with the view: Master E did not finish the work, Master A took part later. But some work had been done before that of Master E and most of that subsequent seems to have been merely addition to an already completed whole. Moreover, various other manuscripts which can be safely ascribed to Master E are readily connected with Charles the Bold and do not date later than 1479, the date of the death of Phillipe de Mazerolles, who is thus tentatively identified with Master E, or Durrieu's Master of the Golden Fleece. The second study is devoted to the reconstitution of a local Flemish school of about 1420-1460. Its founder appears to have been an illuminator under direct Italian influence, possibly through a visit to Bologna. He is here called the Master of Guillebert de Metz because he illuminated two manuscripts written by Guillebert de Metz, the librarian of John the Fearless of

Burgundy. The first of these contains among other things, Guillebert's famous description of Paris, written in 1434. The title page is the point of departure for the reconstruction of the *oeuvre* of the miniaturist. He furnished three miniatures for the Prayer Book 10772 at Brussels; the illuminations in Augustine's *City of God*, 9005/6 in the same library; part of those for Boccaccio's *Decameron*, 5070 in the Bibliothèque de l'Arsenal, at Paris; a few for a Breviary, Harley 2897, in the British Museum; and miniatures in a Vatican Book of Hours, Ottob. 1. 2919; a Prayer Book at the University of Bologna; a Romance in the Bibliothèque Nationale, Paris, fr. 12575; and the Missal of Cardinal Hurtado de Mendoza in the Biblioteca Colombina at Seville. He is Durrieu's "Master of the Silver Skies." His most distinguished follower is here called the Master of the Privileges of Flanders and Ghent. The manuscript around which his personality is built up is 2583 of the Imperial Library at Vienna. To him may be ascribed the title miniature of Gilles de Rome's *On the Government of Princes*, Brussels Library 9043; some miniatures in the second volume of Augustine's *City of God*, 9016 in the same library; the title miniature of a translation of Valerius Maximus in the Bibliothèque Nationale, fr. 6185; a single sheet of the Musée d'Ansembourg, Liège; and possibly a drawing in the Valory sale. He was closely connected with Philip the Good, and his activity, as far as the above-mentioned works go, would fall between 1445 and 1467. He might be Jean Dreux of whom we have corresponding records but the identification remains a question. Both of these artists are clearly Flemish and show relations to the Maître de Flémalle and Jan van Eyck. There are others of less importance in the local school, the seat of which cannot be precisely located. The direct Italian influence is important. The third study throws light on the miniaturists of a Dutch Bible in two volumes, 2771/2 in the Imperial Library at Vienna. The first volume was begun by a good artist but continued by a poor one, the Master of the Bible y402 at the Hague. The second volume was likewise begun by another good artist and finished by the same poorer one with two unimportant assistants. Important for the placing of the two good miniaturists is the discovery of their work in Prayer Book 13 of the University Library, Liège. This was written about 1450 for Ghysbrecht von Brederode, bishop of Utrecht. Its calendar and litany accord with those of Utrecht and this locates the artists whose work is also found in the Viennese Bible mentioned. That a Van Eyck composition from the destroyed Turin Hours is copied in one miniature of the Prayer Book is an interesting side-light on the Utrecht school. The Brederode family was closely connected with the house of Bayern-Hennegau-Nassau for which the Turin miniature had been made. The fourth study lists the work of the Prayer Book Master, a follower of the miniaturist of the famous *Hortulus Animae*. Almost wholly by the Prayer Book Master is the Prayer Book 1862 at Vienna; number 1887 there also shows some of his work. Prayer Book 78 B. 15 at Berlin is by him, as are two single sheets, 660 and 1761, in the Print Room at the same place. Other Prayer Books to be named are one formerly in the Cardon collection at Brussels, one in the Bibliothèque Nationale, Paris, lat. 1314, one in the Escorial Library (H IIII, I) of 1645 folios, which though incomplete is the thickest Prayer Book known. He illuminated one secular manuscript, the *Romance of the Rose*, in the British Museum (Harley 4425).

The Martyrdom of St. Catherine by Rubens.—The Martyrdom scene painted by Rubens for the altar of the church of St. Catherine at Lille has in

recent times been almost forgotten because, though still in the church for which it was executed, it has been placed where it could hardly be seen. During the war it was taken down and hung in a well lighted chapel so that it was possible for it to be studied and photographed. A. FEULNER reproduces and discusses it in *Mh. f. Kunstw.* XI, 1918, pp. 269-275 (3 pls.). The underpainting was done by a pupil after Rubens' design, then gone over by the master, and it is interesting that corrections and additions made by Rubens in the final painting are clearly visible in many places.

Rubens in Italy.—In *Jb. Preuss. Kunsts.* XXXVII, 1916, pp. 262-286 (pl.; 8 figs.), R. OLDENBOURG writes on Rubens' activities in Italy during the years 1600-1608, a period of important development for the artist. Some chronological data are clarified, as, *e.g.* the visit to Genoa in 1606. Tintoretto was one of the earliest influences Rubens felt in Italy; the coloring was the principal medium of this influence. But at the same time the early manner of Titian is mirrored by the female study of the gallery at Stuttgart, in the fine treatment of the flesh and in the waving, brown hair. Raphael soon attracted the northerner's attention, and then in his interest in Michelangelo we see his tendency toward Classicism which led to his extensive archaeological investigations in Rome.

Gerard Soest.—In *Burl. Mag.* XXXV, 1919, pp. 150-155 (2 pls.), G. H. C. BAKER writes on the portrait work of the Dutch artist, Gerard Soest. Most interesting is the ascription to him of the portrait of Aubrey de Vere in the Dulwich Gallery, hitherto ascribed to Samuel Cooper. Others of his works, such as the portrait of the painter, in Dublin, and the portrait of Sir Henry Vane, in the Dulwich Gallery, have formerly been attributed to William Dobson, while the bust of Sir Henry Lyttelton has been attributed to John Greenhill.

GERMANY

North German Painting.—In *Mh. f. Kunstw.* XII, 1919, pp. 33-38 (7 pls.), K. SCHAEFER publishes several paintings that add to the history of painting in northern Germany in the fifteenth century. Some of these can be ascribed to a definite artist, Hinrik Funhof.

Schongauer Genealogy.—A genealogical table of the Schongauer family, together with the documents in which may be found proof of the correctness of its items, is published by E. MAJOR in *Mh. f. Kunstw.* XII, 1919, pp. 101-106.

Veit Stoss.—A crucifix in the Chapel of Schloss Matzen in North Tyrol is discussed by the owner, W. A. BAILLIE-GROHMAN in *Burl. Mag.* XXXV, 1919, pp. 129-136 (pl.). The work was until recent years assigned to the Dürer school, but is now recognized as the work of Veit Stoss on the ground of its resemblance to such works by that master as the S. Sebaldus crucifix in Nürnberg. A document which may refer to the Matzen example would date it in 1503. Some corrections in the literature relating to this same master are made by F. DETTLOFF in *Mh. f. Kunstw.* XII, 1919, pp. 95-100. These have to do with the chronological order of the artist's works in marble in Cracow in the years 1492 to 1495. The monument principally concerned is the grave slab of Zbigniew Olesnicki. Though the commission for this was given soon after the death of the bishop in 1493, the work was delayed because of the

intervention of more important commissions, especially that for the monument to King Casimir for the Cracow cathedral. *Ibid.* XI, 1918, pp. 297-309 and XII, 1919, pp. 14-25 (28 figs.), W. VON GROLMAN shows that, in spite of the extensive studies that have been made of Veit Stoss, judgment of his worth has up to now been built on a false basis because of the lack of sufficient knowledge of his principal work, the Cracow Mary altar. A careful analysis of the eighteen reliefs of this great work is here given and many good reproductions made accessible. There are superficial and spiritless passages in these reliefs, to be sure, but such passages are plainly from the hands of atelier assistants, who could only grasp the general form of the master. At times, as in the relief of the Birth of Mary, the principal figures are among the master's finest conceptions, while a subordinate figure, as the maid here, is the stiff, wooden work of another. Particularly convincing are the results of the comparisons of the Ascension and the Descent from the Cross with the Pentecost and the Entombment respectively. The first two are almost wholly by Stoss himself; the second two, which must be atelier pieces, repeat many details of the Ascension and Descent from the Cross in individual figures and even in the grouping, but the soul is gone, only sentimental pretension remains. The parts of the altar that can be recognized as his own work prove that it is to the early work of Veit Stoss that we are to look for the zenith of his artistic production, and that these proclaim him one of the richest in thought and deepest in feeling of the artists of all times.

Peter Vischer.—Contributions to the study of Peter Vischer are made by H. STIERLING in *Mh. f. Kunstw.* VIII, 1915, pp. 366-370 (see *A. J. A.* XX, 1916, p. 260); X, 1917, pp. 297-300 (pl.); XI, 1918, pp. 17-20 (pl.), 113-125 (7 pls.), 172, 245-268 (9 pls.), 341-344 (pl.); XII, 1919, pp. 47-56 (6 pls.). A grave slab with a relief portrait of the duchess Sophie von Mecklenburg in Weimar which has received various attributions, is principally the work of Vischer. While the fact that the frame is cast with a small part of the drapery of the figure makes it clear that it was done at the same time with the rest and in the same atelier, the style differs from that of the master so that the frame must be attributed to another working in the same shop; undoubtedly it was done by the artist who leaves his name upon it, Thile Bruith. The portrait plaque of Heinrich Stärcker von Mellerstadt, in the cathedral at Meissen, which has been assigned to Vischer by Cramer and others does not belong to him, though it has some of his characteristics. A more important problem to which at least a partial solution is here given is that concerning the Sebald monument. Such details as the abrupt superposition of Renaissance columns upon the lower parts of Gothic pillars indicate that Peter Vischer, the younger, took a hand in the work after his father had completed the wax model. Indeed, the stylistic qualities bear out the assumption that the son is responsible for the greater part of the monument as it stands. Not only did he change what his father had done, but there is at least one clear indication that he changed his own plans as he worked—the lower part of an arch is visible in one place; the trouble was not even taken to eliminate this from the model when the plan for the arch was abandoned. A further confirmation of the change in the father's original plan, as well as an indication of his prototype, is given by the plan of the baldachin grave monument of Pope Innocent VI, which was, until its destruction, in Villeneuve-les-Avignon. This shows in general what the

Sebald monument would have been without the younger Vischer's Renaissance alterations; for the architectural plan of the original is kept in the final form, while the changes consist largely of additions. The type may have been brought to Nürnberg in drawings; at any rate the monument of Innocent VI proves that it is in southern France that the baldachin type of the Sebald monument—unique in German art—is to be sought. Apropos of the question of the originality of Peter Vischer, the younger, a number of his drawings and finished works are studied and placed beside their prototypes in the works of Dürer, Jakob Elsner, Mantegna, Zoan Andrea, and others. The fact that the similarity between the drawings and the models is very close does not refute the fact that much originality was displayed in the final plan. Finally, a number of grave slabs in the Würzburg cathedral must not be omitted from the study of the Vischer family. All but one of these represent canons of the church; that one, which is the finest, portrays Bishop Lorenz von Bibra. Some of the examples can be studied only in the eighteenth century engravings of Salver. These engravings are useful even in the cases of extant slabs, for they show that important changes have since been made, as *e.g.*, in the substitution of later frames. G. KÜSTER, *ibid.* X, 1917, pp. 315–324, assuming that the whole Sebald monument is by Peter Vischer the elder, contends that he must have gone to Italy since there are not sufficient indications of Italian influences coming to Nürnberg to account for the Italianized character of much of the work. Because there are evidences of Renaissance motives on the monument, cast at the same time with the base which bears the date 1508, it is concluded that the elder Vischer's sojourn in Italy must antedate that time.

The "Eselweckgrabmal" by Hans Backofen.—A grave monument in the cloister church of Eberbach in the Rheingau, which is recognized as the work of Hans Backofen, is discussed by K. SIMON in *Mh. f. Kunstw.* XII, 1919, pp. 283–285 (pl.). The man in whose honor the monument was made and who is represented in relief is shown to be Wigand von Hynsperg. Some information is given in regard to his life, adding to one's appreciation of the splendid representation of the figure. It is done in lower relief than is usual with Backofen. The date is about 1512.

Anton Möller.—The artistic origins ascribed to Anton Möller, a painter of Danzig of the latter part of the sixteenth century, by Walter Gyssling are debated by H. EHRENBURG in *Mh. f. Kunstw.* XI, 1918, pp. 181–190 (2 pls.). The Italianized features of Möller's paintings led Gyssling to the assumption that the artist had a long sojourn in Italy. But there is no evidence of such a sojourn and no reason for supposing it, since Italian influence was firmly established in upper Germany and the Netherlands in the second half of the sixteenth century, and Möller much more probably was thus indirectly, rather than directly, subjected to the influence. This becomes the more likely solution when we consider that he shows many Flemish traits in his works, as in the proportion of figures, outline of faces and fashion of costumes.

The Landscape Drawings of Dürer.—The importance of Dürer as a landscape artist is discussed by F. WEITENKAMPF in *Burl. Mag.* XXXV, 1919, pp. 136–143 (2 pls.). The fact that in the engravings the landscapes are rather formalized—*i.e.* are two or three removes from nature—gives one a false idea of Dürer's real ability and accomplishments in nature study. It is in his sketches, done with brush, pen, crayon, and silver-point, that one sees how modern he was in sympathetic interpretation of nature.

Two Altar Wings after Dürer.—An interesting case of borrowing from Dürer's Life of Mary is seen in the two painted wings of an altar from the church of St. Paul in Hildesheim, published by O. GERLAND in *Mh. f. Kunstw.* XI, 1918, pp. 81–86 (2 pls.). Each wing has two paintings; the upper ones, representing the Nativity and the Rest in Egypt, are based on parts of Dürer's series, particularly his Rest in Egypt and Adoration. In the two lower paintings, the Descent of the Holy Ghost and the Death of Mary, the artist lapses into his own style. Dates relating to the construction of the church place this work on the altar between the years 1512 and 1525. The artist, very clearly a Middle German, is probably Hans Raphon, who lived in the vicinity of Hildesheim at this time.

The Dresden Crucifixion by Dürer.—The authenticity of the painting of the Crucifixion in Dresden signed with Dürer's monogram and dated 1506 is discussed by H. KEHRER in *Z. Bild. K.* XXVII, 1915–16, pp. 163–171 (10 figs.). Views *pro* and *con* have been expressed in regard to the work since it became known in the forties of the last century, but no thorough analysis has been made until now. The first thing about the picture that attracts suspicion is the transparent, enamel-like technique of the painting, which is unlike Dürer's work. The date, 1506, is the most plausible one that could have been chosen, for it would place the work in the year of Dürer's sojourn in Venice, at a time when he might have been under such Italian influence as the Dresden picture evinces. But the monogram, though similar in general arrangement to some of Dürer's executions of it, lacks his firm, sure strokes. The boneless structure of the head, indecisive character of the chin, lack of focus in the eyes, indifferent movement of the fingers, and, above all, the baroque, sentimental, publican-like expression of the Christ cannot be attributed to Dürer when one thinks of the altogether different drawing (L.490) of Christ on the Cross which he had already made in 1505. Another important consideration is that no paintings of this time and even much later have the single motive of the Crucifixion; there are always other figures shown. Not until 1571, inspired by the Reformation, do we find the single subject, when it appears for the first time in a painting by Lucas Cranach, the younger. The author of the Dresden painting is no doubt to be sought among that class of painters who in the late sixteenth and early seventeenth centuries were instigated by the increase in the popularity of Dürer's art at that time to imitate his drawings and copy them in oil. Among those artists are Hans Hoffmann, Johann Georg Fischer, and Jeremias Günther. E. H. ZIMMERMANN (*ibid.* p. 228) agrees with Kehler in denying the Dresden painting a place among Dürer's works but points out a few mistakes in certain of that writer's conclusions. The earliest date of the appearance of the single motive of the Crucifixion in painting is not 1571. The Crucifixion by the younger Cranach from the year 1540 in the National Gallery of Ireland at Dublin proves this; and it is to this little painting that one must go for the author of the Dresden panel. The two differ only slightly in details; even the same inscription appears on both, though Cranach's lacks the Dürer signature and date. It is very clear that the Dresden example is a late sixteenth century continuation of the type developed in the Cranach atelier. It does not seem likely that it is a conscious forgery; more probably the monogram was added later. *Ibid.* XXVIII, 1916–17 (fig.) H. KEHRER reproduces the Dublin Crucifixion in question, which he had not known before, and also

mentions another version called to his attention by K. Voll. It is a "Flemish" Crucifixion, much larger than the Dresden example but more like it than the one in Dublin. A photograph of the new parallel, belonging to Prince Jussupow, Petrograd, is not yet accessible.

Dürer's Engraving of "The Four Witches."—In *Rep. f. Kunstw.* XXXIX, 1916, pp. 129-135 (6 figs.), E. SCHILLING explains some peculiarities of the figures in Dürer's engraving of the four witches by a comparison of it with the artist's drawing of women bathing (L. 101 Bremen). From this drawing Dürer has taken over with almost no changes some parts of figures for his witches. Not so efficient in the technique of engraving in his early years as in that of drawing, he has not succeeded in coördinating these parts of figures to the rest of the composition, so that the result is not a happy one. This observation is also significant in the question of Dürer's relationship to Jacopo de' Barbari. Critics, for example, have believed that one of Dürer's witches was borrowed from Jacopo's engraving of Victory and Fame (Kristeller 26), but the derivation of Dürer's engraving from his own drawing of the bathing women proves a reversal of the relationship, Jacopo has borrowed from Dürer. Another work related to the engraving of the witches is the drawing of Veritas in the Uffizi, which has been considered the work of Dürer. But this elegant, superficial figure may be much more reasonably attributed to Hans von Kulmbach.

Jörg Kändel.—The problem of determining the authors of the various parts of late Gothic altar shrines with wings is complicated by the fact that only one artist is mentioned in the documents as responsible for a whole work, while in the actual execution one may do the painting, another the sculpture, or both techniques may be used by the same master. Jörg Kändel, an important upper Swabian artist of the first half of the sixteenth century, is recorded as a painter; but his work in sculpture proves to be more extensive and important than that in painting. The elaborate use of parallel folds of drapery is one of the most striking characteristics of his work. But a comparison of the various related works of his style shows that we have to do not with a single "master of parallel folds," but with several, and that the workshop of Jörg Kändel in Biberach spread the manner in Swabia and Switzerland. (J. BAUM, *Mh. f. Kunstw.* IX, 1916, pp. 419-423; 5 pls.)

GREAT BRITAIN

A Pre-Reformation English Chalice and Paten.—In *Burl. Mag.* XXXIV, 1919, p. 231 (pl.), E. A. JONES publishes a chalice and paten which he believes to be English work of about 1530. M. S. D. WESTROPP, however, thinks that the chalice is here dated a century too early and that it is more likely an Irish production (*Ibid.* XXXV, 1919, pp. 85-86).

AMERICAN ARCHAEOLOGY

GENERAL AND MISCELLANEOUS

Prehistoric Remains in Southwestern Colorado.—The prehistoric remains of southwestern Colorado form the subject of a monograph by Dr. J. WALTER FEWKES recently published by the Bureau of American Ethnology (Bulletin

70). Twenty village sites are described, as are cliff-dwellings, great houses and towers, the megalithic and slab house ruins at McElmo Bluff, artificial reservoirs, pictographs, and minor antiquities. The author thinks it possible to distinguish two epochs of house building among these ruins, an early and a middle stage of development. [*Prehistoric Villages, Castles and Towers of Southwestern Colorado*. By J. WALTER FEWKES. (Bureau of American Ethnology, Bulletin 70.) Washington, 1919, Government Printing Office. 79 pp.; 18 figs. 8vo.]

Archaeological Explorations in Northeastern Arizona.—Bulletin 65 of the Bureau of American Ethnology is devoted to an account by A. V. KIDDER and S. J. GUERNSEY of their explorations in the Kayenta district of northeastern Arizona in the summers of 1914 and 1915. The work was conducted for the Peabody Museum of Harvard University. The sites excavated and the archaeological material brought to light are fully described and the general results of the excavations set forth. The authors discovered two distinct cultures, those of the "Cliff-house" and the "Basket-maker," which are explained and contrasted. Some evidence was also found for a third, the "Slab-house" culture. The work had not been completed when the volume was published. [*Archaeological Explorations in Northeastern Arizona*. By ALFRED VINCENT KIDDER and SAMUEL J. GUERNSEY. (Bureau of American Ethnology, Bulletin 65.) Washington, 1919, Government Printing Office. 228 pp.; 97 pls.; 102 figs. 8vo.]

The Serpent Mound of Adams County, Ohio.—In *Am. Anth.* XXI, 1919, pp. 152-163 (3 pls.; 5 figs.), C. C. WILLOUGHBY discusses certain features of the Serpent mound of Adams County, Ohio. He treats of the various published drawings of this effigy and compares them with his own observations and with certain designs found on artifacts from other Ohio mounds. He concludes that the embankment beyond the "egg" is a true part of the original effigy mound.

Indian Remains in Texas.—In *Am. Anth.* XXI, 1919, pp. 223-234, J. E. PEARCE tells of "Indian mounds and other relics of Indian life in Texas." He finds that the state is divided roughly into five archaeological provinces. The district between the Sabine River and the 96th parallel contains many mounds, mostly near the streams, in which occur "skeletons, clay pots, and flint implements." Along the shores of the Gulf are many shell heaps, some of which are of considerable size. The Grand Prairie region of central Texas has little evidence of Indian life except in a few localities where flint quarries and kitchen refuse heaps are to be found. The region extending from the Grand Prairies to the Pecos has many mounds with circular depressions in their centres. The trans-Pecos region has the same sort of mounds, and in addition metates and pictographs.

The Kankakee River Refuse Heap.—In *Am. Anth.* XXI, 1919, pp. 287-291, GEORGE LANGFORD describes "the Kankakee river refuse heap" in Illinois. He finds that the most characteristic artifacts on this site are small triangular points "unstemmed," rejects, scrapers, adzes, and pottery fragments.

The Antiquities of Adams County, Wisconsin.—In the *Wisconsin Archeologist*, XVIII, No. 2, 1919, pp. 43-84 (8 pls.; 14 figs.; map), H. E. COLE and H. A. SMYTHE give a description of all the known antiquities of Adams County, Wisconsin, with measurements and drawings of many of the effigy mounds.

A Handbook of American Antiquities.—The Bureau of American Ethnology has published (Bulletin 60) the first part of a *Handbook of Aboriginal American Antiquities* by Professor WILLIAM H. HOLMES of the National Museum. After a general survey of the subject, and of the problems which it presents, he sets forth the characteristics of the twenty-two culture areas into which he divides North and South America, discusses quarries, mines, etc., and describes in detail the various methods of working stone. The second part of the work will contain a study of implements, utensils, and minor artifacts of stone. [*Handbook of Aboriginal American Antiquities. Part I. Introductory. The Lithic Industries.* By WILLIAM H. HOLMES. (Bureau of American Ethnology, Bulletin 60.) Washington, 1919, Government Printing Office. 380 pp.; 223 figs. 8vo.]

Helmets of the Tlingit Indians.—In *Mus. J.* X, 1919, pp. 43–48 (6 colored pls.), L. S. (HOTRIDGE), a Chilkat Tlingit Indian, describes a collection of war helmets and clan hats made by him among members of his tribe and now in the Museum of the University of Pennsylvania.

The Maya Indians of Southern Yucatan.—Under the title of *The Maya Indians of Southern Yucatan and Northern British Honduras* THOMAS W. F. GANN publishes a study in two parts, one devoted to the customs, ceremonies, and mode of life of the modern Mayas; and the other to a detailed account of the excavation of forty-one mounds in the eastern Maya area. These mounds had originally served for various purposes, but from them was taken considerable archaeological material which throws much light on the ancient inhabitants of the region. Some of the vases found are reproduced in colors. [*The Maya Indians of Southern Yucatan and Northern British Honduras.* (Bureau of American Ethnology, Bulletin 64.) By THOMAS W. F. GANN. Washington, 1918, Government Printing Office. 146 pp.; 28 pls.; 84 figs. 8vo.]

Clay Heads from Teotihuacan.—In *Man*, XIX, 1919, pp. 33–34 (pl.), A. C. BRETON describes some small clay heads found at Teotihuacan of a type found nowhere else. Each site in the vicinity shows local peculiarities in this type.

A Terracotta Figure.—In *El Mexico Antiguo*, I, 1919, pp. 73–81 (pl.; 13 figs.), H. BEYER discusses the terracotta figure of a man found at Texcoco and now in the American Museum of Natural History of New York (published by M. H. Saville, *Bulletin*, 1897, pp. 221 ff.). The figure is standing with open mouth and appears to be wearing armor. The writer argues that it is a representation of the god Xipe, not merely the figure of a warrior.

A West Indian Stool.—In *Man*, XIX, 1919, pp. 1–2 (pl.), T. A. JOYCE describes a wooden “stool” found on Eleuthere Island, Bahamas. The stool was carved in unmistakably West Indian fashion. The writer gives an historic note on the use of such objects.

An Unidentified Object from Santo Domingo.—In *Man*, XIX, 1919, pp. 145–149 (pl.), J. W. FEWKES describes a curved wooden object from Santo Domingo. He considers objects of this kind to be neither seats nor mortars but some sort of ceremonial form, the cavity being for the offering of cakes.

NOTE

The BIBLIOGRAPHY OF ARCHAEOLOGICAL BOOKS, 1919, will appear in No. 3.

SPANISH IVORIES OF THE XI AND XII CENTURIES IN THE PIERPONT MORGAN COLLECTION

AMONG the Pre-Gothic ivories in the Pierpont Morgan Collection, presented to the Metropolitan Museum in 1917, are five ivories, or possibly six, of Spanish origin, dating from the eleventh and twelfth centuries. Certain of these have already been published. In the second volume of his monumental work on Carolingian ivories,¹ Goldschmidt illustrates and describes an ivory figure of the Crucified Saviour² mounted on a cross of copper gilt. Goldschmidt's attribution of this crucifix to northern Spain is convincing, but the date which he proposes, about 1200, seems somewhat late. I prefer to assign it to the close of the twelfth century. Some fifty years earlier is the fine plaque³ with two scenes from the Resurrection cycle, the Journey to Emmaus and the *Noli me tangere*, which was formerly in the Guilhou and Hoentschel Collections. It is published in the Catalogue⁴ of the Hoentschel Collection and described as Spanish, tenth century. This date is far too early; the ivory must surely be assigned to about the middle of the twelfth century. Possibly of the same period and provenance is another ivory from the Hoentschel Collection, representing Christ in Majesty, described in the Catalogue⁵ as French, first half of twelfth century. In the following notes I propose to discuss the remaining ivories, which, as far as I have been able to ascertain, have not been described.⁶

¹ Goldschmidt, *Die Elfenbeinskulpturen aus der Zeit der Karolingischen und Sächsischen Kaiser*, II, No. 27, p. 23, pl. X.

² Accession No. 17.190.221.

³ Accession No. 17.190.47.

⁴ *Collections Georges Hoentschel. Introductions et Notices de M. André Peraté. Ivoires, Orfèvrerie religieuse, Pierres.* 1911, No. 11, pl. XI.

⁵ *Op. cit.*, No. 16, pl. XIV.

⁶ Except for brief references in my general survey of the Pre-Gothic ivories published in *B. Metr. Mus.* January, 1920, and for the description, unillustrated, of the Queen Felicia book-cover in the Carmichael Sale Catalogue.

The earliest of these is illustrated in Figure 1. It is a small plaque,¹ measuring $2\frac{1}{2}$ inches in height by $4\frac{3}{8}$ inches in width. The subject is difficult to identify. Four men support on their shoulders a pole, from which is suspended an object possibly intended to represent a tree trunk. A naked woman lies beneath this object and touches it with her right hand. I suggest that the scene relates an incident connected with the Invention of the Holy Cross.

When St. Helena found the three crosses which had been buried by the Jews in a ditch or well, it was impossible to determine



FIGURE 1.—SPANISH IVORY, ELEVENTH CENTURY: METROPOLITAN MUSEUM.

which of the three was the Cross upon which Christ had died, as the *titulus* was missing. In this quandry, St. Macarius, Bishop of Jerusalem, was divinely inspired to have all three carried, one after the other, to a sick woman who lay at the point of death. When she touched the True Cross, the woman suddenly became well, and by this miracle the problem of identification was solved. Another test of the Cross was made, according to St. Paulinus, by St. Helena, who caused a man already dead and buried to be brought in contact with the Holy Cross, whereupon he came to life. The recumbent figure in the Morgan ivory, however, is that of a woman, indicating, if my surmise is correct, that the reference is to the test carried out by St. Macarius.

As to the representation of the Cross in the form of a tree, it is hardly necessary to recall the legend which relates that Seth

¹ Accession No. 17.190.142.

planted over Adam's grave a branch from the Tree of Knowledge, which endured until the time of Solomon, who cut the tree down that it might be set in his house. There it was venerated by the Queen of Sheba, who said that the Saviour of all the world should be hanged thereon. Solomon then caused the tree to be buried deep in the earth, where it was discovered by the Jews and used for the timber of the Cross; so that, to quote from the Golden Legend, "the cross by which we are saved came of the tree by which we were damned."

The plaque is carved in fairly high relief. As decoration, the work is not unsuccessful, but the strangely flattened faces with large elongated eyes (now almost obliterated by the rubbing which the ivory has suffered) and the conventional rendering of the bodies and limbs are crude and primitive in character. In the treatment of drapery, however, the carver displays a marked feeling for rhythm, and succeeds in giving the effect of movement to the figures. The modeling of the drapery is strengthened by short parallel lines cut in the opposite direction to the fall of the folds. This engraving technique, if one may call it so, is characteristic of early Spanish ivories.

The style is identical with that of the ivories of the Shrine of San Millan, which Sancho the Great, King of Navarre (d. 1035), ordered made in 1033 and presented to San Millan de la Cogolla (Province of Rioja). In the ivories of the Shrine we note the same facial types, the same technical characteristics in the rendering of form and the treatment of drapery, and the same costume. The similarity is so close that the Morgan ivory, which is said to have been found at Salamanca, may be assigned with certainty to the same atelier as the San Millan Shrine, and to the approximate date of this monument.

Were these ivories carved by a Christian artist of Spain or by a Musulman working under Christian patronage and direction? Whether or not the Christian names¹ which appear on the Shrine may properly be considered the names of artists, the crudity of the work, when compared with the dextrous carvings of the Spanish Moresque caskets of the same date, makes one hesitate to describe the Shrine as the work of a Spanish Arab. At the same time, the influence of the Musulman art of Spain is most evident. This composite style may be described as Proto-Mudejar.

¹ J. F. Riaño, *The Industrial Arts in Spain*, p. 134.

Of the rare Spanish ivories of this early period carved with Christian subjects, undoubtedly the most famous is the ivory crucifix presented, with other precious objects, in 1063 by Ferdinand the Great, King of Castile (d. 1065), and his Queen Doña Sancha of León (d. 1071), to the Church of San Isidoro at León.¹ This crucifix is now in the Archaeological Museum at Madrid.

The crucifix is unusually large, measuring 21 inches in height by 13½ inches in width. The Saviour's eyes are represented open; the pupils are made of jet. The head is bent down and inclined to one side. Nails transfix the hands; both feet, which rest upon a *suppedaneum*, show the wounds made by the nails. A loin cloth reaches from the waist to the knees.

The cross is elaborately carved on both sides. The short vertical arm above the head of Christ is inscribed IHC NAZA|RENVS REX | IVDEORV(M); above this is a small figure of Christ bearing the Resurrection Cross. Below the *suppedaneum* is a crouching figure of Adam, who gazes upward, and the inscription: FERDINANDVS REX | SANCIA REGINA. Animal and human forms swarm upon the borders of the cross. These reliefs represent the Descent into Hell, the Resurrection of the Flesh, the Opening of the Sepulchres, and Man's Conflict with Evil, symbolized by devouring beasts. On the reverse, the Agnus Dei holds the central position. At the extremities of the arms are the symbols of the Four Evangelists. The other decoration consists of a formal border pattern and of large foliated medallions with figures of animals and men.

The crucifix² is generally accepted as Spanish, but opinions differ as to whether it is the work of a Musulman or of a Christian artist. In either case a Byzantine model has presumably been

¹ For the letter of testament see *España Sagrada*, XXXVI, Appendix, p. clxxxix. The reference to the Crucifix is "—*crucem auream cum lapidibus compactum, oliviteam, et aliam eburneam, in similitudinem nostri Redemptoris Crucifixi.*" The other ivories in the gift comprised boxes and diptychs—"et capsam eburneam operatam cum auro, et alias duas eburneas argento laboratas, in una ex eis sedet intus tres aliae capsellae, in eodem opere factae, et dictacoe culptiles eburneos."

² Brief bibliography: J. F. Riaño, *Spanish Arts*, p. 135. Linas, 'Le Crucifix de la Cathédrale de León au Musée de Madrid,' *R. Art Chrét.* 1885. E. Molinier: *Histoire Générale des Arts appliqués à l'Industrie*, I. Ivoires, p. 168. G. Migeon, *Manuel d'Art Musulman*, II, pp. 141-144. L. Williams, *The Arts and Crafts of Older Spain*, II, pp. 99-104. Paul Mayeur, 'L'Iconographie du Crucifix de San Isidoro de León,' *R. Art Chrét.* 1909, p. 255 ff.

followed for the principal features of the crucifix. The Christ is the least successful part of the work. It has been argued¹ that the crudity of this figure, which is certainly inferior to the surprisingly vivacious representation of the human form in movement elsewhere on the cross, indicates that the figure of Christ and the surrounding decoration are not the work of the same hand. It hardly seems necessary to adopt this theory of two craftsmen, one skilled and the other inexpert. Aside from the fact that the principal figure would scarcely have been entrusted to the less skilful of the two, there are sufficient reasons to explain these differences in quality in the work of one artist. In the first place, the much smaller scale of the little figures on the cross tends to conceal the artist's deficiencies in anatomical knowledge, which become conspicuous in the large figure of Christ, where, furthermore, through the nature of the subject, the carver had no opportunity to give the effects of movement which lend so much animation to the other carvings. Again, the small figures, the fantastic animals, and the vine scrolls were probably derived from other sources than the model followed for the Christ. This would help to explain the diversity in style which has been noted in the execution of the San Isidoro ivory. In my opinion, one artist is responsible for all the work on the crucifix. The fineness of the execution, especially of the ornament, and the technical peculiarity, essentially Oriental, of the deep-set background on which the relief appears to be applied as cut-work, lead me to believe that the San Isidoro Crucifix was carved by a Spanish Arab who brought to the service of his Christian patron the skilled craftsmanship and the genius for decoration which are so amazingly displayed in the ivory caskets carved for the Mohammedan rulers of Spain.

In the Morgan Collection is a plaque (Fig. 2), measuring $5\frac{5}{8}$ inches in height by $3\frac{1}{2}$ inches in width, which is undoubtedly by the same artist who carved the San Isidoro crucifix.² The technique is the same. The figure of Christ and the symbols of the Evangelists are repeated practically without change. The two birds in foliated scrolls in the upper border of the Morgan plaque and the corresponding design of confronted animals in the lower border are found on the front of the San Isidoro crucifix at the extremities of the lateral arms. The animals and men in

¹ Leonard Williams, *The Arts and Crafts of Older Spain*, II. p. 103.

² Accession No. 17.190.40.

the *rincaux* of the side borders of the Morgan plaque have the closest analogies with similar representations on the crucifix. The tessellated background is found on both pieces. The



FIGURE 2.—SPANISH IVORY BOOK COVER, ELEVENTH CENTURY: METROPOLITAN MUSEUM.

Morgan plaque, which was evidently made for a book cover, to judge from the holes for attachment surrounded by vine wreaths in the four corners of the plaque, is inscribed on the lower margin: IHC H(*sic*)AZARENVS REX IVDEORV(M).

On either side of the cross in the Morgan ivory stand the Virgin and St. John; above the lateral arms of the cross are symbolic

representations of the sun and the moon; above the head of Christ is an angel. These additional figures, which naturally do not appear on the San Isidoro ivory, indicate that, for the Crucifixion at least, the carver followed a Byzantine model. The influence of Musulman art is apparent, however, in the technique of the carving, in the leaf and animal forms, and in the general character of the decoration. The Morgan plaque may be dated, through its affinity to the San Isidoro ivory, about the middle of the eleventh century. It is a piece of exceptional importance, not only because of the rarity of early Spanish ivories, but also on account of its association with the celebrated crucifix which Ferdinand and Sancha presented in 1063 to the Church of San Isidoro at León.

The remaining ivory, a book cover¹ (Fig. 3), measures $10\frac{1}{4}$ inches in height by $7\frac{1}{2}$ inches in width. The core is of wood. The wide borders are covered with thin plaques of silver gilt decorated with cabochons and bits of enamel, which are interspersed in a freely developed, balanced design of filigree. The sunken central panel is covered with a plaque of silver gilt on which, in repoussé, is a cross, the nimbus of Christ, and two inscriptions: IHC NA|ZARENVS and FELICIA | REGINA. Against this background five small figures in ivory are applied: Christ crucified, the Virgin, St. John, and two mourning women, who probably represent the sun and moon. One would expect any figures, other than angels, occupying the spaces above the lateral arms of the cross, to have this meaning, but the absence of attributes is exceptional and makes identification uncertain. Possibly the zig-zag lines beneath the figures are intended to suggest clouds. On the other hand, the figures appear to be kneeling, and the zig-zags may be folds of drapery awkwardly rendered. Two mourning women without attributes may be instanced as occupying similar positions in a Crucifixion scene on a Carolingian ivory in the National Museum of Budapest.² These figures, however, are certainly intended for the sun and moon since their mantles are gathered up in such a way as to suggest the conventional method of representation.

¹ Accession No. 17.190.33. Formerly in the Carmichael Collection. (Sale Cat. of the Coll., Christie, Mason and Wood, 1902, No. 35.) According to the catalogue, this book-cover came from the Stein Collection, but the piece is not included in the sale catalogue (Paris, 1886) of the Stein Collection.

² Goldschmidt, *Elfenbeinskulpturen*, I, No. 165, pl. LXXVIII.

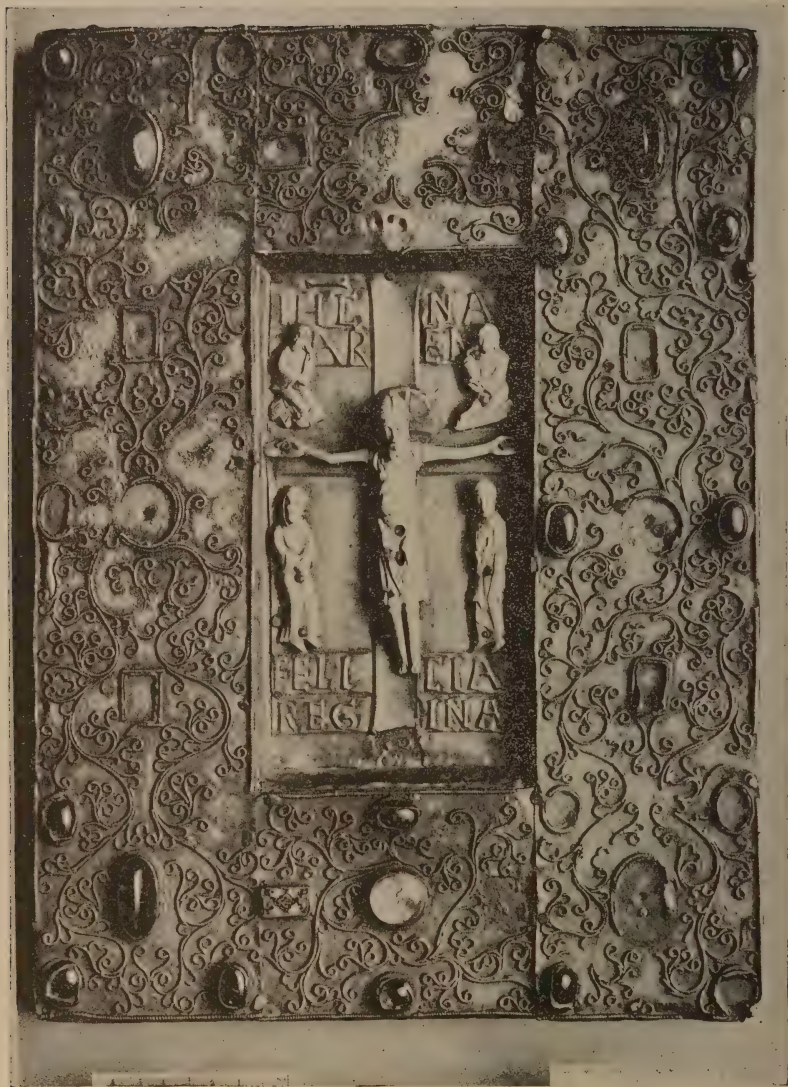


FIGURE 3.—THE BOOK COVER OF QUEEN FELICIA: SPANISH, ELEVENTH CENTURY: METROPOLITAN MUSEUM.

The carving of the ivories on the book-cover lacks distinction. The heads are disproportionately large; the expressions, sullen; the modeling, unskilful. The four smaller figures are decidedly inferior to the Christ, which may have been copied from a good

model. The attitude of the figures and the general composition of the scene indicate that the carver had at least some acquaintance with Christian iconography, but the forms themselves appear to have been influenced by Musulman carvings on ivory caskets. The long, wide sleeves, turned back at the wrists, suggest the oriental garb of the little figures on these ivory boxes, of which the early eleventh century casket in the Cathedral of Pamplona is a well-known example. There are also analogies in the pose of the figures and in the treatment of the folds of drapery. The peculiar zig-zags, already noted, perhaps have their origin in the V-shaped folds which may be seen in the costumes of certain kneeling women on the Pamplona casket. The design of the filigree on the cover has a Spanish character. On the whole, I think the evidence inclines toward a North Spanish provenance, and a date which may be approximately determined by the inscription on the cover as the third quarter of the eleventh century. FELICIA REGINA is presumably Felicia,¹ the wife of Sancho Ramirez (*ca.* 1037–1094), who reigned in Aragon as Sancho I (1063–1094), and in Navarre as Sancho V (1076–1094).

JOSEPH BRECK.

METROPOLITAN MUSEUM OF ART,
NEW YORK, N. Y.

¹The Carmichael Catalogue states that "M. Emile Molinier gives the following interesting description of Queen Felicia: '*Felicie, fille de Comte Hildhuin, et d'Adele de Chatillon, mourut en 1085. Femme de Sanche Ramirez V^e du nom comme roi de Navarre et I^{er} comme roi d'Aragon.*'" I have been unable to find where Molinier makes this statement, but in any case, there seems to be no reason for discrediting the Spanish genealogists, according to whom Felicia was the daughter of Armengol de Barbastro, sixth Conde de Urgel and of his wife, Doña Clemencia. See D. Diego Monfar y Sors, *Historia de la Condes de Urgel*, I, p. 329.

CENTAUROMACHY AND AMAZONOMACHY IN GREEK ART: THE REASONS FOR THEIR POPULARITY

UNLIKE the Romans, the Greeks, in most branches of their art, made little use of recent historical material.¹ This is pre-eminently true of their monumental sculpture. During the great central period of Greek art, the Fifth and Fourth Centuries, B.C., there is no known Greek building whose sculpture represents a recent historical event, excepting the Temple of Athena Nike ("Wingless Victory") at Athens.² The usual themes are mythological, and of these certain ones enjoyed especial popularity. A few great mythical contests, viz., that of the Gods against the Giants, those of Greeks against Centaurs, against Amazons, and against Trojans, supply subject matter to an impressively large number of decorative Greek sculptures. Of these themes the centauromachies and amazonomachies were the most often repeated. Thus, among the works of the Fifth Century, battles with Centaurs were to be seen at Athens, in painting, within the Theseum and, in sculpture, on twenty-three metopes of the Parthenon, on the sandals of the cult-image in that temple, on the western frieze of the "Theseum" (falsely so called), and on the shield of the colossal bronze statue popularly known as the Athena Promachus; at Sunium on the frieze of the Temple of Poseidon; at Olympia in the western pediment of the Temple of Zeus; at Phigalia (Bassae) on the frieze of the Temple of Apollo. The Fifth Century list for battles with Amazons is almost as long. These were to be seen at Athens, in painting, within the Theseum and the Painted Stoa, and, in sculpture, perhaps on the western

¹ In mural painting, however, historical battle-scenes were not uncommon at any period. The reason for this divergence from monumental sculpture is obscure.

² The Frieze of the Parthenon, although inspired by actual contemporary events, is not strictly historical. It presents a generalized and idealized picture of recurring celebrations.

Lycian sculptures, such as those on the "Nereid Monument" at Xanthus, are excluded from the statement made above.

metopes of the Parthenon and certainly on the shield of the cult-image in that temple; at Phigalia (Bassae) on the frieze of the Temple of Apollo; at Olympia on the throne and again on the foot-stool of the cult-image in the Temple of Zeus. Such are the facts, so far as known, for public buildings and statues. At a humbler level the same subjects figure frequently on the contemporary painted vases of Attica.

What is the explanation of such iteration? A current answer to this question regards these mythical battles as symbols of other, more real and more important, achievements. This general view takes somewhat different forms. Some authorities see in the contests against Centaurs and Amazons covert references to the glorious struggle of Greece against Persia. An eloquent presentation of this interpretation is given by Professor G. Baldwin Brown.¹ The passage is too long to quote, but the gist of it is conveyed in the sentence, "The victory over Persia inspired indirectly all the monuments of the culminating period of Greek sculpture."² Other writers, believing in a symbolic interpretation, read the symbols in a more general way. It is enough to quote Professor Percy Gardner,³ in whose view the metopes of the Parthenon present "the story of the development of order out of chaos, and civilization out of barbarism."⁴

I do not believe in any one of these symbolic interpretations. It is, of course, impossible to prove that no such ideas were entertained by any Greek. But I think it can be made probable that neither the artists who designed the works in question nor the general public understood them in that way. To speak affirmatively, I maintain that the Athenians and other Greeks of the Fifth Century, as well as earlier and later, took the mythical contests now under consideration simply at their face value. The overthrow of the invading Amazons by the Athenians was an important event in the legendary history of Attica. The subject, then, might and probably did stir patriotic emotions among the Athenians. Outside of Attica it had little, if any, patriotic significance. As for the battle of Lapiths against Centaurs, the

¹ *The Fine Arts* (4th ed.), pp. 82-86.

² See also Colvin, *J. H. S.* I, p. 109; E. Gardner, *Handbook of Greek Sculpture* (1915), p. 495; Roscher, *Lexikon der griech. u. röm. Mythologie*, vol. II, 1038, 1039.

³ *Principles of Greek Art*, p. 315.

⁴ Similar views are expressed by Overbeck, *Geschichte der griech. Plastik*, I, 425; Curtius, *History of Greece* (Am. ed.) II, 623.

Attic hero, Theseus, did indeed take part in it. Nevertheless it was not for the Athenians a national exploit, and accordingly it was not included, as the amazonomachy sometimes was,¹ in the series of great Athenian achievements. In general, I should say that these two stories stood on a par in the minds of the Greeks with other mythical stories, such as that of the Argonauts or that of the Calydonian boar-hunt. They were interesting in themselves and they were on a heroic scale; but they conveyed no reference to events other than themselves.

Several considerations lead to this conclusion. In the first place, it must be borne in mind that the tales of Centaurs and Amazons originated at an early period. Just what set them going it is fortunately needless for present purposes to inquire. Long before the Persian Wars these stories furnished material for artistic representation. Thus the battle of Lapiths and Centaurs appears on the Hesiodic Shield of Heracles, associated with other mythical and with genre subjects. Among the numerous scenes on the Throne of Apollo at Amyclae and the Chest of Cypselus the combat of Heracles with Centaurs found a place. Among extant monuments the François vase, dating from about 560 B.C., has on one side a somewhat extended Lapith-Centaur battle, while on the architrave of the temple at Assos Heracles pursues a group of Centaurs. It is needless to cite additional examples. Contests of Greeks with Amazons also begin to appear on the black-figure vases of the Sixth Century. There is nothing to suggest that in this period Centaur-stories and Amazon-stories had any more meaning than the numerous other tales of the artists' repertory. It is, of course, conceivable that after the great experiences of the Persian Wars these stories took on a new significance; but some positive proof of this ought to be produced before we can accept it.

Now—and this is the second point—there is no ancient authority for the symbolic interpretations under discussion. Considering the extreme meagerness of our ancient sources of information regarding Greek art and especially regarding the popular appreciation of art, this objection is not fatal. But it should at least give us pause. The only passage, I believe, in extant ancient literature which attempts to give a reason for the employment of centauiromachy or amazonomachy in art is Pausanias V, x, 8.

¹Isocrates, IV, 68; VI, 42; VII, 75; XII, 193; Ps.—Lysias, II, 4-6; Pausanias, V, xi, 7.

There the writer, after describing the centauiromachy in the western pediment of the Temple of Zeus at Olympia, adds this comment: "Alcarnenes, it seems to me, represented this scene because he had learned from Homer that Pirithous was a son of Zeus, and because he knew that Theseus was a great grandson of Pelops." (Frazer's translation.) This explanation shows at least that in Pausanias' time the centauiromachy was not understood as a symbol for the Persian Wars or for the victory of civilization over barbarism. If such an understanding was current in the Fifth Century B.C., it must have died out.

In the third place, if we are seeking to divine the ideas underlying Greek monumental art during its great period, we are bound, not to single out a few subjects, however popular, but to survey the entire field. What do we find? The range of mythical material employed is considerable. Thus, among the subjects with which Polygnotus and the other painters of the generation following the Persian Wars adorned the walls of public buildings in Athens and elsewhere, we find the visit of Odysseus to Hades, the slaughter of the suitors of Penelope, the seizure of the Leucippides by Castor and Pollux, the return of the Argonauts, the expedition of the Seven against Thebes. The Temple of Athena at Tegea, an important building of the early Fourth Century, had in its eastern pediment a group representing the Calydonian boar-hunt. Is it likely that these compositions suggested hidden patriotic meanings? And, if not, is it not arbitrary to assume that other compositions, drawn from the same great storehouse of mythology, were invested with symbolic significance?

In the fourth place, we find centauiromachies and amazonomachies used in the Fifth and Fourth Centuries under circumstances where their supposed symbolic meaning would be inappropriate. I refer to the Heroön at Trysa in Lycia and the Mausoleum at Halicarnassus. The former of these must have been the funeral monument of some Lycian chieftain. Even if he claimed to be a Greek, as Benndorf supposed, he was a Persian subject. So was the Carian satrap to whom the Mausoleum was erected. We have to strain probability a good deal in order to believe that subjects currently understood in Greece as typifying the successful resistance of Greece to Persia were used to adorn these edifices. Even the vaguer significance of the triumph of Greek civilization over barbarism would seem out of place.

Finally, there is an argument which appears to me to have considerable value. Whereas in a gigantomachy the gods are, of course, unmistakably victorious over their enemies, in a centauiromachy or an amazonomachy there is, as a rule, but slight indication, if any, of victory. Pausanias (I, xvii, 2) describes as follows a painting by Micon: "In the sanctuary of Theseus there is also painted the battle of the Centaurs and Lapiths: Theseus has already slain a Centaur, but the others are fighting on equal terms." (Frazer's translation.) Of the twenty-three metopes of the Parthenon with Centaurs and Lapiths six give a decided advantage to the Lapiths; six show apparently undecided struggles; eleven, including the four in which the Centaurs carry off women, give the advantage to the Centaurs. Take again the centauiromachy on the west frieze of the so-called "Theseum." There, to be sure, the Lapiths outnumber the Centaurs by two, but otherwise there is nothing to indicate which side is to gain the day. This apparent indifference to the outcome of the contest goes so far that on red-figure vases we sometimes find, represented alone, the incident of the Lapith Caeneus being rammed into the ground by two Centaurs.¹ Now it is true that a Greek, looking upon any of these scenes, could have felt no doubt of the general issue; that was fixed in legend. But if the artists had really intended to suggest by allusion a Greek triumph, is it likely that they would have balanced the antagonists so equally and even have detached from the story an incident of Lapith defeat?²

What then is the explanation of the popularity in Greek art of centauiromachy and amazonomachy? In my opinion there is no need to hunt for any far-fetched explanation. These subjects commended themselves to the painters and sculptors of the Fifth Century and later, partly because they were drawn from famous and honorable exploits, but chiefly because they afforded an inexhaustible variety of artistic themes. Add the self-perpetuating power of a fashion once established and you probably have the whole story.

¹ *E. g. Mon. Ant.* IX, Pl. 2, a vase-painting by Polygnotus, dating about 460 B.C.

² Contrast the painting of the Battle of Marathon in the Painted Stoa, where, although at one side the struggle was undecided, the rout of the Persians was made clear (Pausanias I, xv, 1). In those parts of the frieze of the Temple of "Wingless Victory" which represent a battle or battles between Greeks and Persians the superiority of the Greeks is marked.

This will seem to some a lame and impotent conclusion. It would indeed be agreeable to believe, with Professor Baldwin Brown (*The Fine Arts*, p. 83), that "the primary conception of Greek as opposed to barbarian . . . —Hellas against the non-Hellenic—formed the fundamental theme of Greek monumental art." But this is a modern illusion. It must dissolve if the evidence be critically examined.

F. B. TARBELL.

CONTRIBUTIONS OF GREEK ART TO THE MEDUSA MYTH

WHILE the Medusa myth doubtless grew up by the same cumulative process as other myths, the oldest extant representations of it show that as early as the seventh century B.C. its main features as we know them today were current. Naturally it was the culminating incident which furnished the motive to the artists, and the earliest representations of the myth, such as the metope from Selinus,¹ the Boeotian vase relief in the Louvre,² and, later in date, a black-figured vase by Amasis in the British Museum,³ all depict the act of decapitation, and in the first two representations just mentioned there is a probable suggestion of the birth of Pegasus.

The type of physical frightfulness is practically the same in all archaic representations, whether of the myth, the mask, or the single full figure. All have the broad face with wide staring eyes; an ugly grinning mouth with the tongue almost invariably outstretched and usually displaying gnashing teeth and tusks. But the detail which the name of Medusa generally suggests to modern students—the “snake hair,” or the hair changed into snakes by Athena by way of retribution—is absent. This detail is one of the two accretions to the myth which it is proposed to consider in this paper.

The stock patterns of grotesque masks used on coins and gems, in relief sculpture, and in vase painting of the seventh, sixth, and even fifth centuries have been more or less loosely classed under the name of “Gorgon masks.” It is evident that these masks did not always refer to Medusa or the Gorgon sisters, but were often intended to represent Phobos or some male demon. But a brief comparative study will make apparent the close relationship, artistically, between these decorative masks and the Gorgon faces in the archaic representations of the myth.

¹ Benndorf, *Die Metopen von Selinunt*, pl. I

² *B. C. H.* XXII, 1898, pl. V.

³ *Wiener Vorlegeblätter*, 1889, pl. IV, 1, b.

A typical Gorgon or Phobos mask of a stock pattern used in black-figured vase painting occurs on a cylix in the Bibliothèque Nationale in Paris (Fig. 1). Comparing the shape of the face and the features of this mask with the face of Medusa on a black-figured oenochoe in the British Museum (Fig. 2), or with that of Medusa on a red-figured amphora in Munich (Fig. 3), we find a resemblance so strong as to prove that artistically the conception of the creatures represented was the same. Again, we find the same strong resemblance between the mask on certain fifth century coins of central Greece,¹ and Medusa's face in the representation of the myth on the Selinus metope already referred to. Numerous other comparisons might be made, but the point seems too obvious to require further elaboration. It is, therefore, to these masks that I shall refer primarily in considering the development of the snake hair, since in rendering the mask the artist, having an



FIGURE 1.—MASK ON CYLIX: BIBLIOTHÈQUE NATIONALE, PARIS.

ample field and a simple subject, naturally gave more attention to facial details than he did when dealing with a complex subject like the myth. But we shall see that the Gorgon head in the representations of the single full figure followed the same course of development in regard to the snakes in the hair as the masks, though with less elaboration.

It is generally admitted and is substantiated by existing monuments, that in the archaic period snakes were not considered a necessary attribute of either Medusa, the Gorgon sisters, or of Phobos, and certainly they do not appear in the hair of Medusa. It is true that the snakes were occasionally used decoratively in

¹ See *B. M. Catal. of Coins, Central Greece*, pl. XXII, 1, 2, 3 and 8.

connection with the mask, as on a warrior's shield on a black-figured vase by Execias in the Vatican.¹ But the shield on the opposite side of the design is decorated with a mask of Silenus similarly accompanied by a snake, though the reptile was not an attribute of Silenus.

Sometimes, though rarely, snakes were used decoratively on the person of Medusa in the representations of the myth. An excellent example is the Medusa figure from the pediment of the ruined temple at Corfu.² These pediment figures are half round, and on the stone surrounding the figure of Medusa, and especially about her head, there are swarming snakes in low relief.



FIGURE 2.—THE DEATH OF MEDUSA: OENOCHOE OF AMASIS.

Around her forehead the hair is curled in heavy snail-shell curls suggestive of serpents, while on either side of her face, a large snake in high relief is crawling out from behind her head. There are also two snakes girt about her waist.

Again there are instances in which the individual artist provided Medusa or the Gorgon sisters with a serpentine ornament as on the black-figured oenochoe by Amasis (Fig. 2), or on a black-figured amphora in Triest.³ The same arrangement appears also on the figures of Phobos on the flange above the handles of

¹ Furtwängler-Reichhold, *Griechische Vasenmalerei*, pl. 131.

² Illustrations, *Πρακτικά*, 1911, pp. 172-173.

³ Gerhard, *Auserlesene Griechische Vasenbilder*, pl. LXXXVIII.

the François vase.¹ This form of snake decoration, probably of foreign origin, was not generally used, and evidently did not become a feature in any stock pattern. At any rate, in all three cases just mentioned, the snakes are a decorative feature and not, anatomically, a part of Medusa. They are not snakes growing in the hair.

What, then, do the monuments tell us about the origin, at least artistically, of this detail? While the huge grinning mouth and outstretched tongue were the most constant elements of frightfulness during the archaic period, there was developed at an early date, a tendency to make the creature more hideous and inhuman by a grotesque rendering of the hair. Sometimes it is arranged about the face in alternate bands or scallops of black and purple, as on the Gorgon on the handle of a Corinthian crater in the British Museum, known as the "Amphiaraos Vase";² or on a mask decorating the centre of a cylix in the Bibliothèque Nationale.³ Sometimes the scallops are all black, but by



FIGURE 3.—GORGON ON AMPHORA: MUNICH.

means of incised lines are transformed into flat snaky curls, as on a mask decorating a cylix in the Berlin Museum,⁴ or one similarly used on a cylix in the Bibliothèque Nationale (Fig. 1).

A further development was the rendering of the hair in long serpentine locks radiating from the crown of the head, with the ends coiled about the forehead, as on an archaic antefix from the Athenian Acropolis (Fig. 4), or on a mask decorating a cylix in

¹ Furtwängler-Reichhold, *op. cit.* pls. 1 and 2.

² Furtwängler-Reichhold, *op. cit.* pl. 122.

³ DeRidder, *Cat. des Vases Peints de la Bib. Nat. I*, pl. IX.

⁴ Gerhard, *op. cit.* pl. CCLI, 3.



FIGURE 4.—ARCHAIC ANTEFIX: ATHENS.

Munich.¹ On the latter example, the locks are alternately red and black.

With these developments, there came a tendency to produce coiling, twisting locks upstanding about the face, as on the mask on the warrior's shield on the black-figured vase by Execias in the Vatican, already referred to. Here the coiled ends surround the forehead as if attached to it, and the free ends are tossed back from the face.

This arrangement is reversed, and the serpentine appearance of the hair more strongly emphasized on a mask decorating the handle of a black-figured celebe in London (Fig. 5). Here the free ends are upstanding and coiled. The mask on a small

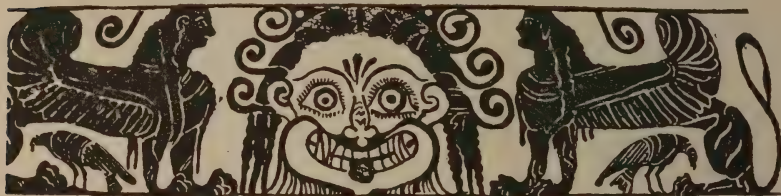


FIGURE 5.—MASK ON CELEBE: BRITISH MUSEUM.

coin of Lesbos seems to represent the last step in the development of snaky locks (Fig. 6). It would certainly require but slight expansion of creative fancy to pass from the rendering of hair shown on this coin to the actual fringe of serpents surrounding the head of Medusa on a red-figured amphora in Munich (Fig. 3), or to the similar fringe surrounding the mask decorating the shield of Athena on several vases of about the same period as this amphora.² Nor is there any abrupt change in passing from the coiled,

¹ Lau, *Die Griechischen Vasen*, pl. XVII, 1, b.

² E.g. mask on a shield on a red-figured vase in Munich, Furtwängler-Reichhold, *op. cit.* pl. 22.

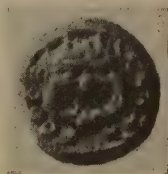


FIGURE 6.—COIN OF LESBOS.

upstanding locks around the mask on the celebe in London (Fig. 5) to the hair actually coiled into serpents on a bronze mask found on the Athenian Acropolis (Fig. 7).

While the coiling locks were developing about the mask, the decorative use of snakes about the head of the full figure seems to have suggested snakes mingling with the hair, such as are found on the Gorgon in relief from the Temple of Apollo at Didyma,¹ which is claimed to be one of the earliest extant monuments on which this detail occurs.² So we see that the artists have changed the hair into snakes.

In the long preceding period of Gorgon representation, the artist adhered closely to the main features of the myth, but by a process of evolution he created a detail which it seems more than probable the myth accepted and absorbed into itself. The illustrations of this development here cited are only a very few of the immense number which existing works of art afford. It is not claimed



FIGURE 7.—BRONZE MASK FROM THE ACROPOLIS: ATHENS.

that any attempt has been made to follow a strict chronological order in presenting these illustrations, for such an undertaking would obviously be impossible of accomplishment. But it seems equally obvious that the examples here presented do constitute a sequence showing the development of the snake forms in the hair.

Evidently the assimilation of this detail by the myth was by no means immediate or even rapid. Had the snakes in the hair been a recognized part of the myth at the time of their first appearance in art, they would have become an essential feature, and when once developed, they would have been generally if not

¹ Pontremoli et Haussoullier, *Didymes: Fouilles de 1895 et 1896*, pl. XX.

² Mendel, *Cat. des Sculptures Gr., Rom., et Byzantines*, etc. (in the Museum of Constantinople), I, p. 559.

uniformly used. As a matter of fact, however, the Gorgon mask and the single full figure throughout the archaic and middle periods were represented quite as often without snakes in the hair and about the head as with them.

Beginning in the latter part of the fifth century, there was a tendency to soften the Gorgon or Medusa face. This tendency continued down into the late period of Greek art and culminated in the complete evolution of what is known as the beautiful type of Medusa. The earliest traceable example of this type was a bronze mask of which several marble copies exist, the best of them being the one known as the Rondanini mask. In the matter of Gorgon or Medusa representation, this bronze original was far in advance of its period, for it was not until many years after its probable date that the beautiful type became the usual one.

This type, of which many examples occur on gems, often of the Augustan age, is represented by a fine girlish head, characterized as Medusa solely by the snakes in her hair. It was not, therefore, until a late period that the constant use of snakes in this way bears witness to the accepted orthodoxy of this part of the myth.

Long before this time, the single full figure used decoratively had practically disappeared from Greek art, and at no time, not even in the period of the beautiful type, were the snakes, as a rule, found in the hair of Medusa or in any way connected with her in the decapitation scene, or in representations of Perseus carrying off the severed head of Medusa. The black-figured oenochoe by Amasis (Fig. 2) and the pediment figure from Corfu are notable exceptions to this general rule.

The second addition to the myth of which the monuments give evidence, is the assertion that the head of Medusa was fastened to the aegis of Athena. On this point, the evidence from the monuments is, in the nature of the case, of a negative character; and the scantiness of original material and the question of fidelity in existing copies make it necessary to speak with considerable reservation.

Like the snakes in Medusa's hair, this detail (the Gorgon mask attached to the aegis of Athena) does not appear in the earliest extant monuments. In black-figured vase painting the mask was often used on the shields of warriors, but rarely if ever on the shield of Athena. I have been unable to find a single instance of its use on the aegis of Athena in vase painting until the begin-

ning of the period of red-figured vases. A vigorous example of its use in this manner occurs on a red-figured vase by Andocides in the Berlin Museum.¹ In this case, the mask has all the traditional ugliness of feature. But the use of the mask on the aegis in vase painting was intermittent, and the rendering, as a rule, negligent and feeble, indicating that it was not accepted as a necessary part of the myth. As early as the latter part of the sixth century and the early part of the fifth, however, the mask was used on the aegis in sculpture with considerable vigor and sincerity.² But the extant remains of original sculpture of this period are too scanty to permit generalization as to the prevalence of this feature.



FIGURE 8.—MARBLE STATUETTE: ACROPOLIS, ATHENS.

However this may be, according to existing sculptures, the mask was not used on the aegis of Athena with anything like uniformity during the middle part of the fifth century, or from 470 to 440 B.C. Taken in connection with the similar omission in vase painting, this is further evidence that this detail had not yet become a part of the myth.

At about the period of the Parthenon, a change in this matter seems to have taken place. According to Pausanias there was a Gorgon mask on the aegis or breast of Athena Parthenos.³

¹ Furtwängler-Reichhold, *op. cit.* pl. 133.

² See Dickens, *Cat. of the Acropolis Museum*, Nos. 140, 142, and 625.

³ Pausanias I, 24, 7.

Other evidence is furnished by a presumably original statuette in the Acropolis Museum, belonging probably to a period within ten years after the Parthenon (Fig. 8). The mask on this statuette is of the archaic type so common on the fifth century coins of central Greece, excepting that the mouth is not distorted. Belonging to the period of this statuette, and later, is the relatively large group of statues of Athena known to us through Roman copies, and to which the Athena Velletri and the Farnese and Hope Athenas belong; and then, for the first time in Greek art, so far as we may judge from existing material, the mask was so generally used on the aegis as to make it an essential feature.

Was there a revival at this time of a forgotten portion of the myth, and did the sculptors respond by a proper representation in their statues? Or, as seems more probable, did the sculptors in this time of great artistic activity revive and beautify an old motive, purely as an artistic detail, and did the myth accept the amendment and explain its meaning?

LILLIAN M. WILSON.

CHICAGO, ILLINOIS.

THE NATURE OF THE LARES AND THEIR
REPRESENTATION IN ROMAN ART

*"Bina gemellorum quaerebam signa deorum
Viribus annosae facta caduca morae!
Mille Lares Geniumque ducis, qui tradidit illos,
Urbs habet, et vici numina trina colunt."*

—Ovid, *Fasti*, V, 143–146.

OVID's words may well serve as an introduction to one of the problems connected with the Lares. The poet represents himself as searching with increasing perplexity for the twin figures in which he had been accustomed to recognize the Lares. In their stead, he found innumerable groups composed of the two Lares Augusti with the Genius of Augustus between them. A Roman of earlier days, on the other hand, would have been equally surprised to find the number of the Lares restricted to two. In this paper I shall attempt a brief discussion of the reasons for the variations in the number of the Lares, and I shall also try to explain the differences in the representation of the Lares in Roman Art.

Following in the footsteps of De-Marchi,¹ Rohde,² Samter,³ von Domaszewski,⁴ and others, I regard, as the "original" Lar, the *Lar familiaris* in whom I recognize a good spirit, closely attached in each case to a particular family, to its dwelling, and to the territory immediately surrounding the house. The worship of this spirit, which centres in and about the family-hearth, contains many features which seem to point to a chthonic cult and which imply that the Lar was originally worshipped as the spirit of the ancestor who had founded the family and still watched with devotion over the fortunes of his descendants.

¹ *Il culto privato di Roma antica*, I, pp. 27 ff.

² *Psyche*, I, 1910, p. 254.

³ *Familienfeste der Griechen und Römer*, pp. 105 ff.; *Arch. Rel.* X, 1907, pp. 364 ff.

⁴ *Abh. zur römischen Religion*, p. 174.

Not only in the house but at the *compita*, or crossroads, another great centre for chthonic cults, these protecting spirits were worshipped. Here they were supposed to congregate in indefinite numbers, corresponding perhaps to the numbers of the adjoining estates.¹

The Roman community as a whole was protected by similar deities. These *Lares praestites* were represented as twin youths. Working retroactively, the state-Lares in their turn exercised influence upon the Lares of the *compita* and dualized also the *Lar familiaris*.² Between the twin Lares of the *compita*, after the reforms of Augustus, appeared the Genius of the Emperor. Lastly, between the twin Lares of the household was placed the Genius of the master of the house,³ in a few instances⁴ supplanted by the Genius of the Emperor.

As this view is directly opposed to that repeatedly expressed by Wissowa,⁵ I shall give briefly the chief objections raised by this great authority and the answers which I think may be made to them.

Wissowa's theory,—that the Lar is attached always to places, not persons; that he is in the beginning a spirit not of the family but of the farm,⁶ and especially of the boundaries of the farm represented by the cult of the crossroads; that he has no connections with the cult of ancestors or of the dead,⁷—is supported by the following considerations:

1. The comparatively late origin of the belief that the Lares represented the souls of dead ancestors. All our oldest references,

¹ In this connection, I am disposed to accept, against Samter, the conclusion of Wissowa (*Religion und Kultus der Römer*, (1912) p. 167 and note³) that the shrines discussed by Dolabella (*Grom. lat.* I, p. 302, 20 ff.) are identical with those of the Lares at the *compita*. These shrines are described as having entrances and altars corresponding to the number of estates adjoining.

² This change, it would appear from *Rudens*, 1207, must have occurred as early as Plautus; but cf. Jordan (*Annali*, 1872, p. 39) who places it after Pomponius (*flor.* 88 B.C.). Possibly the beginning of the development may be dated from Plautus, the complete change from Pomponius. Wissowa would assign it to the reforms of Augustus (*Arch. Rel.* VII, 1904, p. 48).

³ The Genius of the master had of course received worship by itself before Augustus. Cf. Plautus, *Captivi*, 290 ff.; De-Marchi, p. 75.

⁴ *Röm. Mitt.* V, 1890, p. 244; Mau-Kelsey, *Pompeii* (1907), p. 270.

⁵ Roscher, *Lex. d. Myth.* II, 2, s. v. *Lares*; *Arch. Rel.* VII, 1904, pp. 42 ff.; *Rel. u. Kult.* pp. 166 ff.

⁶ *Arch. Rel.* VII, pp. 49 and 56.

⁷ *Rel. u. Kult.* p. 174.

according to Wissowa, deal exclusively with the Lares as guardians of the farmer's fields.¹ Such are the prayers of the Arval brothers, the inscription on the *ara Consi* quoted by Tertullian, and the *devotio* of *Decius*. To the fields also belongs the oldest festival connected with the cult,—the Compitalia.

2. The difficulty of finding a place for the Lares in the house-cult and of distinguishing them in function from chthonic conceptions like the *di Manes* and the *di parentes*, or from Vesta, goddess of the hearth.²

3. The prominence given to slaves in the worship of the Lares,³ a prominence which Wissowa considers absolutely unthinkable if the origins of the cult are to be traced to the worship of ancestors.

In general, says Wissowa, the idea that the Lares were identical with the deified ancestors of Roman families did not prevail until the time of Varro.⁴ Wissowa himself however quotes Plautus, *Mercator*, 834, *di penates meum parentum, familiai Lar pater*, as a passage seemingly at variance with his argument,⁵ but declares it contradicted by *Mercator*, 836,—*Ego mihi alios deos penates persequar, alium Larem, aliam urbem, aliam civitatem*, etc.

To say nothing of the possible comic effect which the lines may have been intended to have, as the speech of a desperate young man minded to attempt the all but impossible, it would doubtless be conceivable to a Roman audience that a man could, under certain exceptional circumstances, secure another Lar. Was it not accomplished in the ceremony of *adoptio*?⁶

As for the early references in the songs of the Arvals and in the *devotio* of *Decius*, Samter⁷ has proved the appropriateness of

¹ *Arch. Rel.* VII, pp. 48 f.

² *Arch. Rel.* VII, pp. 43 ff.

³ Roscher's *Lex. l. c.*, p. 1890.

⁴ *Arch. Rel.* VII, p. 42 and note.

⁵ *Lar familiaris* in this passage, as in the prologue to the *Aulularia*, is probably a translation of *ἡρως*. See Leo in *Hermes*, XLIII, 1908, p. 127. Wissowa would consider this equation as due, not to the fact that the Lar was an ancestral spirit, but to the gradual introduction of the Lar from the field to the house-cult. See *Rel. u. Kult.* p. 169.

⁶ If we choose, however, we may, following Samter (*Arch. Rel.* X, 1907, p. 372²), regard *Lar* as used metaphorically to mean simply "house," and thus procure a satisfactory climax,—*Larem, urbem, civitatem*.

⁷ *Arch. Rel.* X, p. 389; *Familienfeste*, p. 117.

calling on the Lares to protect and bless the Roman fields, since, if they represent the souls of deified ancestors, they were probably regarded as especially able, like other chthonic deities, to bring increase to the crops.¹ The same considerations apply of course to the inscription on the altar of the harvest-god Consus, and the efficacy of Decius's appeal to the Lares, if they were the souls of his ancestors, hardly needs comment. The appeal to the Lares among other divinities when the Arvals made an expiatory offering would be equally natural. To the meaning of the Compitalia I shall later recur.

Wissowa's well-known reluctance to turn for aid and analogies to the folklore of other peoples is partly responsible for his tendency to regard the Lar as attached exclusively to places, not to persons.

Examples drawn from the conduct of the house-spirits of Northern Europe are interesting because, although they illustrate just such fond devotion to the farm and the farmstead as Wissowa emphasizes in the case of the Lar, they also prove that the main object of attachment in such cases is not the house, but the family occupying it. Many of these tales rouse one's sympathy for the much-tried farmer who unsuccessfully endeavours to rid himself of a too-devoted house-spirit. At last, the family in desperation sets off for a new home, only to hear from one of the drays which bear their goods and chattels the triumphant cry of the brownie who has succeeded in accompanying them.² That in Roman belief also the Lar could be transferred with the family to a new home is proved by the well-known passage in *Trinummus*, 39 ff.³

Wissowa⁴ goes too far also in distinguishing between the Genius and the Lar on the ground that the Lar is never attached to persons so that expressions such as *Genio Marci nostri*, *Manes Silanorum*, etc., could never be used in connection with the Lares.

¹ Cf. Domaszewski, *Abhandlungen*, p. 174:—"Diese Ahnherrn hatten einst die Ackerflur ihres Fundus dem Walde abgerungen. Sie wirken fort als Schützer ihrer Flur."

² Cf. Grimm, *Deutsche Myth.* p. 424³.

³ See also Ovid, *Fast.* IV, 802; Tibullus, II, 5, 42; and Samter, *Familienfeste*, p. 108. Cf. Ralston, *Songs of the Russian People*, pp. 120 f.:—"When a Russian family moves from one house to another, the fire is raked out of the old stove into a jar and solemnly conveyed to the new one, the words, 'Welcome, grandfather, to the new home!' being uttered when it arrives."

⁴ *Arch. Rel.* VII, p. 56.

For not only the Lares Hostilii¹ and the Lares Volusiani,² but the Lares Augusti themselves show the possibility of attaching to the Lares a personal appellative.³

The Lar as the single deified founder of the family stands in a place apart, and easily distinguished from that occupied by the *di Manes*, the souls of the dead in general, and the *di parentes*, the dead descendants of the Lar.⁴ Neither is the function of the Lar comparable to that of Vesta, though as he makes his home in or near the hearth, there was undoubtedly a connection between him and the great goddess of the house-fire.⁵ It is noticeable, for instance, that both Servius and Romulus were supposed to be sons of the Lar by virgins. In the case of Servius, the maiden Ocrisia was offering sacrifice at the hearth of the palace when her destiny was revealed to her by the Lar in phallic form;⁶ in the case of Romulus, the punishment threatened the virgin is averted by Vesta who appears to the wrathful king of Alba in a dream.⁷ A somewhat similar story is told of Caeculus, founder of Praeneste, who was the son of a maiden impregnated by a spark from the hearth-fire.⁸ In this instance, we note the substitution (regarded by Wissowa as late and of

¹ Paulus, p. 102; cf. W. F. Otto, 'Mania und Lares,' *Arch. f. lat. Lex.* XV, 1908, p. 120.

² *C. I. L.* VI, 10266 f.

³ The plural in *Lares Hostilii* proves to Wissowa that the Lares here are not the ancestors of the *gens Hostilia*, but the Lares as attached to the estate of the Hostilii. (*Rel. u. Kult.* p. 169^s.) But the plural may equally well be explained as the duplication of the *Lar familiaris* brought about by the worship of the Lares at the *compita*.

⁴ So the Lares do not receive worship on the Parentalia except at the Caristia or love-feast of the family, where they are undoubtedly present merely as family-gods, without connection with the dead. For, as Mommsen (*C. I. L.* I, 1, [ed. 2] 309) believes, the Parentalia belong to a late period when the dead were thought of as kindly and harmless beings, removed from the ordinary life of the family, and safely buried in their tombs. In considering such a festival, we are far distant from the epoch when the Lar was consciously regarded as an ancestor who dwelt beneath the hearth and must be carefully, at times even anxiously, propitiated.

⁵ In the *Aulularia*, 7 and 8, the person who entrusts his treasure to the Lar, *in medio foco defodit*.

⁶ Plutarch, *de fort. Rom.* 10; Dion. Hal. *Antiq. Rom.* IV, 2; Ovid, *Fasti*, VI, 627-636; Pliny, *N. H.* XXXVI, 204; Arnobius, *Adv. Nat.* V, 18; and cf. Preller, *Röm. Myth.*³ II, p. 344.

⁷ Plutarch, *Vit. Rom.* 2.

⁸ Virgil, *Aen.* VII, 678 ff.; X, 544; Cato quoted by Schol. Veron, *ad Aen.* VII, 681; Servius, *ad Aen.* VII, 678; Solinus, II, 9.

Greek origin) of Vulcan for the Lar.¹ Pertinent also are the words of Pliny (*N. H.* XXVIII, 39): *fascinus . . . deus inter sacra Romana a Vestalibus colitur.*

Such stories bring into prominence one of the chief characteristics of the *Lar familiaris*,—his generative power. Here again a Roman tradition may be illuminated by foreign parallels.² In one of the instances quoted above, the hearth-god appeared in the form of a spark of fire, and the examples collected by Frazer³ show the wide prevalence of the belief in the procreative force of fire and of fire-spirits, and the universality of the idea that the hearth is the abode of deified ancestors. It is interesting also to note that in the Polish tale quoted by Grimm to illustrate the persistence of the household spirit in clinging to a particular family⁴ the name of the brownie is Iskrzycki, translated by Grimm as "*funke, feuerstein*," and he lives in the family-stove. In this he resembles his Russian relative, the Domovoi,⁵ and other house-spirits.

The unique privileges given to slaves in the cult of the Lares constitute no argument against the conception of the Lar as a deified ancestor. If the Roman encouraged slaves to worship their master's Genius, to make offerings in its honor, and to swear by it, he would surely see no objection to their sacrificing in honor of the Lar, who was regarded as so close in nature to the Genius that the two were even identified.⁶

Slaves, too, as Samter remarks,⁷ would be especially likely to take part in cults pertaining to the farmhouse and the kitchen, to which a large part of their activities would naturally be confined. In consonance with this assumption, Germanic house-spirits help especially in the work of the kitchen and stable. Like Milton's Lubber-fiend, the most illustrious of their clan, they toil for grooms and maids to "earn a cream-bowl duly set," keeping meantime, like the Lar of the *Aulularia*, a watchful eye on the treasures of the house.⁸

¹ This substitution appears as an alternative tradition in the legend of Servius.

² The universality of such beliefs is an argument against attributing the Roman traditions to a Greek origin, as Wissowa is inclined to do. See Otto, '*Mania u. Lares*,' p. 118.

³ *Golden Bough*³, II, pp. 221 ff.; 230 ff.

⁴ See p. 244, note 2.

⁵ Ralston, *Songs of the Russian People*, pp. 119 ff.

⁶ Censorinus, *de die natali*, III, 2.

⁷ *Familienfeste*, p. 119.

⁸ Grimm, *op. cit.* pp. 422 ff.

But the connection between the slaves of a Roman household and the Lares seems peculiarly significant. The mother of Servius Tullius was a slave; the mother of Romulus in the similar story was a handmaid, who was moreover forced to take the place of her reluctant mistress, the princess whom King Tarchetius had intended to be the bride of the phallic Lar.¹ The *vilicus* was forbidden to take part in religious rites except at the Compitalia or festival of the Lares.² Dionysius emphasizes the important position given to slaves at this time. The festival in fact was established by Tullius, the slave's son, who τοῖς . . . τὰ περὶ τῶν γειτόνων ἱερὰ συντελοῦσιν ἐν τοῖς προνωπίοις οὐ τοὺς ἐλευθέρους, ἀλλὰ τοὺς δούλους ἔταξε παρέλναι τε καὶ συνιερουργεῖν, ὡς κεχαρισμένης τοῖς ἥρωσι τῆς τῶν θεραπόντων ὑπηρεσίας.³

On the night before the festival, woolen images representing the free members of the household and balls⁴ representing the slaves were hung up at the *compita* and before the house-doors as an offering to the Lares. The effigies and balls were intended, says Paulus,⁵ as a surrogate, *ut vivis parcerent et essent his pilis et simulacris contenti*. Macrobius⁶ adds that a sacrifice was originally made not only to the Lares but to Mania who, as Varro tells us,⁷ was the mother of the Lares. It was instituted by Tarquinius Superbus as a sacrifice of slaves *pro familiarium sospitate*; and, according to Macrobius, a gentler mode of celebration, involving the substitution of heads of garlic and poppy for human heads and the offering of images to Mania before the doors, was due to Junius Brutus.

At the Larentalia, a chthonic festival celebrated about the same time (December 23) at the grave of Acca Larentia, also identified by some scholars with the mother of the Lares,⁸ a mutilated note of Varro's⁹ informs us that a sacrifice was made to the spirits of dead slaves.

¹ Plutarch, *Vit. Rom.* 2.

² Cato, *de Agr.* V, 3. For the *vilica's* offering to the Lares on Kalends, Nones, and Ides, cf. *de Agr.* CXLIII, 2.

³ *Antiq. Rom.* IV, 14.

⁴ That these *pilae* may themselves have been images is shown by Samter, *Arch. Rel.* X, p. 383³.

⁵ P. 239; cf. p. 121, 17.

⁶ *Sat.* I, 7, 34.

⁷ *Ling. Lat.* IX, 61.

⁸ The identification is strenuously opposed by Wissowa, in Pauly-Wissowa, s. v. *Acca*, pp. 133 f. It is supported by Müller-Deecke, Schwegler, Preuner, and Preller. See Wissowa's references, *l. c.*

⁹ *Ling. Lat.* VI, 24; *faciunt dis manibus servilibus sacerdotes*.

Finally, Acca Larentia herself shares in the taint of lowly birth, for she was supposed to have been a *meretrix*, forced, like the mothers of Romulus and Servius, to marriage with a god, in this instance Hercules.¹

Both the Larentalia and the Compitalia were, as von Domasewski has observed,² under the influence of the Saturnalia. Anxiety for the fate of the seed was mingled with awe and reverence for the dead who, themselves hidden beneath the earth, might forward or retard the growth of the crops. As in many other countries, a period of carnival magically aided by its freedom and license the development of plant life. Frazer has conjectured³ that the Saturnalia may have originated in an intercalary festival, regarded, like such festivals in general, as an unlucky season when the ordinary rules of life were inverted.

Curious reversals of regular custom marked at any rate the days of the Saturnalia. One of the most astonishing features of the festival was the liberty allowed to slaves. They took their masters' places, sat at table waited on by their lords, and assumed in the household all the dignity and power usually displayed by their owners.⁴ The same procedure marked the Cronia and other Greek festivals,⁵ and Dionysius seems to hint at something of the same sort by the following passage on the Compitalia:⁶ ἦν ἔτι καὶ καθ' ἡμᾶς ἐορτὴν ἄγοντες Ῥωμαῖοι διετέλουν ὀλίγαις ὕστερον ἡμέραις τῶν Κρονίων, σεμνὴν ἐν τοῖς πάνυ καὶ πολυτελεῇ . . . καὶ φυλάττουσι τὸν ἀρχαῖον ἐθισμόν ἐπὶ τῶν ἱερῶν, διὰ τῶν θεραπόντων τοὺς ἥρωας ἱλασκόμενοι καὶ ἅπαν τὸ δοῦλον ἀφαιροῦντες αὐτῶν ἐν τοῖς ἡμέραις ἐκείναις, ἵνα τῇ φιλανθρωπίᾳ ταύτῃ τιθασσεύομενοι μέγα τι καὶ σεμνὸν ἐχούσῃ χαριέστεροι γίνωνται περὶ τοὺς δέσποτας, καὶ τὰ λυπηρὰ τῆς τύχης ἥττον βαρύνωνται.

When one remembers that during this same festival effigies were offered at the crossroads, a chthonic centre, to divert the attention of the Lares and Mania and cause them to spare the living,⁷ one is led to the conjecture that possibly slaves at this season were scapegoats for their masters and took for a brief

¹ Macr., *Sat.* I, 10, 11 ff.

² *Abh.* p. 174.

³ *Golden Bough*³, VI, p. 339.

⁴ Macrobian *Sat.* I, 7, 26; I, 24, 23; Horace *Sat.* II, 7, 4; Seneca, *Ep.* 47, 14.

⁵ Athen. XIV, 44 f., pp. 639 B, 640 A.

⁶ IV, 14.

⁷ Cf. the explanation given by Macrobius (I, 7, 31) of the *Sigillaria* used as presents during the Saturnalia.

hour their places and privileges, not for the reason given by the kindly Dionysius, but to give their lords a further chance to deceive the lurking spirits by satisfying them with humbler prey.¹

The offering of woolen effigies corresponding in number to the free inhabitants and of balls for the slaves of each household does not, of course, entail the ridiculous consequence suggested by Wissowa² that those who regard it as a surrogate must hold that originally all members of the household were sacrificed to the angry deities. The images were doubtless intended merely, like the beans of the Lemuria, to attract the attention of the spirits³ and divert them from their possible intention of seizing or harming some member of the family, each of whom was thus protected. An image might be a satisfactory substitute for a man. If, however, the precaution proved vain, then the disguise of the slaves as freemen might be of efficacy in deluding the denizens of the underworld, and a slave might be seized instead of his master. The sacrifice to the Manes of slaves is likewise explicable, if the slaves during this cycle of festivals were really representatives of their masters.

I hold, then, that none of Wissowa's objections to considering the Lares as the souls of ancestors is cogent.⁴ If the account of the development of the cult which I have suggested above is

¹ Many parallels might be adduced to illustrate the feeling of primitive peoples that dead ancestors, though a source of fertility and so of blessing, are also jealous spirits, liable to injure even their kindred. Cf. Frazer, *Belief in Immortality*, I, pp. 130, 153, 173, 247, 258, 298. The capriciousness of the modern brownie may perhaps show a survival of this belief.

² *Rel. u. Kult.* p. 167^s.

³ Often at similar festivals food is offered to spirits with a like propitiatory purpose. Cf. Schol. Aristoph. *Frogs*, 218, and J. C. Lawson, *Modern Greek Folklore and Ancient Greek Religion*, p. 201; Ralston, *op. cit.* p. 134.

⁴ One may query why, if the hearth or the space beneath it was associated, perhaps as an original burial-place, with the cult of ancestors, it was connected in worship with a single ancestor only, the *Lar familiaris*. To this one may answer that the *Lar familiaris* was rather the personification of the Ancestors embodied in the founder of the family, than an individual. It is to the *ius imaginum* that we must look for individualized ancestors. This is perhaps the reason why the word *Lar* meant to the Roman "house," "home," "family-traditions" as well as "family-god." The vagueness of the concept would explain also why the *Lar* so readily accepted pluralization. Even Plautus (*Rudens*, 1207) uses *Laribus familiaribus* in an inaccurate plural for all the gods venerated at the hearth.

So the Genius of the father of the family was the only Genius which received worship from all the members of the household, though each male had his own Genius. Similarly, too, the Russian Domovoi (Ralston, *op. cit.* p. 120) is

correct, we may draw an interesting parallel with the evolution of Hermes from a θεός μύχιος or ἐφέστιος to a θεός πυλαῖος and ἀγοραῖος and also to a θεός προπύλαιος and a θεός ἐπιτέρμιος.¹

Neither of the *Lar familiares* nor of the Lares in their other aspects as gods of the *compita* and protectors in general of the Romans and their city do we find representations in art until Greek influences have absorbed and modified the original conception.

There was, however, a well-established tradition² that an altar to the *Lares Praestites* had been founded in Rome as early as the days of Titus Tatius. Ovid³ and Plutarch⁴ both describe the ancient *signa* of the Lares, statues which despite their age, must, as Wissowa has shown,⁵ belong to a comparatively late period when the ancient open altar had been replaced by a temple and images after the Greek model. As neither Ovid nor Plutarch appear themselves to have seen the statues of the Lares, it is probably to Varro that we owe the description of them as two standing youths with a dog, also standing, between their feet. Plutarch adds that the Lares themselves were dressed in dog-skins. Both suggest as a reason for the presence of the dog the character of the Lares as guardians, and we may remember the attribution of a dog to Silvanus who is often closely connected and even confused with the Lares.⁶ Some authorities⁷ the chief representative of the ancestors, though in some districts the spirits of the dead usurp his functions. Among the Hereros (*Golden Bough*³, II, p. 221) the ancestral spirits at the hearth are often addressed in the plural; but, when a sick man is borne round the fire, his friends chant:

"See, Father, we have come here,
With this sick man to you,
That he may soon recover."

¹ M. B. Ogle, review of Eitrem, *Hermes u. d. Toten* (a work to which I regret that I have not had access) in *Am. Jour. Philol.* XXXI, 1910, pp. 93 ff.

² Varro, *Ling. Lat.* V, 74.

³ *Fasti*, V, 129 ff.

⁴ *Aet. Rom.* 51.

⁵ See Roscher's *Lexikon*, s. v. *Lares*, p. 1871.

⁶ *Rel. u. Kult.* p. 214. The dog also appears with the Dioscuri on Roman denarii of ca. 217–197 B.C. See Grueber, *Coins of the Roman Republic in the British Museum*, I, p. 58. As the dog, however, is in frequent use as a symbol of the gens *Antestia* (p. 114), it is doubtful whether the denarii mentioned may not have been coined by a member of the gens, in which case the animal would have no particular connection with the Dioscuri.

⁷ Jevons, *Roman Questions*, Introduction, p. XLI, and Ehrlich, *Zeitschr. f. vergl. Sprachforsch.* XLI, 1907, p. 298.

even advance the theory that the Lares themselves were originally worshipped in the shape of dogs. No trace, however, of such a worship appears in the cult of the *Lares domestici*, and in general house-spirits are not symbolized by this animal.¹ The use of dogs in chthonic cults is on the contrary well attested, and when we remember that Hecate, goddess of the dead who gather at the crossroads, was represented as a dog,² and that dogs were sacrificed to Genita Mana,³ a goddess whose close relation to Mania and the Manes is undoubted, the presence of the dog with the *Lares praestites* seems clearly to indicate the chthonic side of their nature.⁴

On the reverse of coins of the gens *Caesia* (Fig. 1), issued 104 B.C., sit two youths draped round the waist and grasping spears. Between them is a dog and in the field is the inscription in monograms LARE, while above appear the head and tongs of Vulcan. Although evidently influenced by the ancient statues of the *Lares praestites*, these youths are seated instead of standing like the figures which Ovid described. The dog also sits, whereas in Ovid, *canis ante pedes saxo fabricatus eodem stabat*. The type of the Lares here is plainly Dioscuric.



FIGURE 1.—THE LARES: DENARIUS OF L. CAESIUS.

From the representation on the coins of the gens *Caesia* differ all other known artistic conceptions of the Lares. Bronze statues, altar-reliefs, Pompeian *lararia*, shrines at the *compita*, and wall-paintings unite in representing the Lares as curly-haired youths with high-girt tunics and boots. Their hands hold various attributes of peace and plenty, such as rhyta, paterae, horns of plenty, etc.

Of this type Friederichs further distinguishes two sub-classes.⁵ The youths of the first hold a cornucopia and patera, or, instead of the latter, wheat-ears (Fig. 2, A). The Lares in this group always appear clad in a chiton and mantle. In the second group, they pour liquid from a rhyton, held high in the right hand, into a patera or similar receptacle in the left hand (Fig. 2, B). They

¹ The cat, on the other hand, hence our "Puss in Boots," is frequent in this connection. See Grimm, *op. cit.* p. 416.

² Rohde, *Psyche*, II, p. 83³.

³ Plutarch, *Ael. Rom.*, 52.

⁴ See Fowler, *Roman Festivals*, p. 101.

⁵ *Berlins antike Bildwerke*, II, pp. 438 ff.

often wear the chiton only, and advance in pairs with a jovial dancing-step, whereas Class I shows a more quiet posture. Although the first class so markedly resembles the undoubted Lares of the second class, the attribution is not attested by inscriptions, and Wissowa's conjecture¹ that the single quiet



FIGURE 2.—STATUETTES OF LARES: A, PRE-AUGUSTAN TYPE; B, DANCING LAR.

figures may be *Lares familiares* of the pre-Augustan age therefore lacks proof.

Confining ourselves, then, to Class II and to the type seen on the coins of the *gens Caesia*, let us endeavor to decide (1) why the Lares were portrayed in forms which suggest the Dioscuri; (2) why this warrior-type is so much rarer than the other; and (3) what considerations influenced the choice of the commoner representation.

1. It was not unnatural that a connection between the Lares and the Dioscuri should occur to the Roman mind. The Dios-

¹ Roscher, *Lexikon*, s. v. *Lares*, p. 1894.

curi, like the Lares were, in one aspect, house-spirits,¹ although their guardianship was in general rather over the door than the hearth.² Door and hearth, however, are in folklore most intimately associated,³ and more than one bit of evidence may be adduced to prove the connection of the Lares with entrances.⁴

The chthonic aspect of the Dioscuri would also lead to their identification with the Lares, as would the belief in their efficacy as saviors and protectors both of individuals and of the state.

2. The reason for the choice of another type to represent the Lares may well have been the danger of confusion with the Penates whose statues in the state shrine on the Velia, as described by Dionysius⁵ prove their artistic affinity to the Twin Brethren. Judging from the coins of C. Antius Restio⁶ and of the Sulpicii and Fonteii,⁷ the resemblance was even closer than in the case of the Lares. If Wissowa's conjecture,⁸ that in Tusculum also the Penates of the community were represented as Dioscuri, be

¹ See Nilsson, *Griechische Feste*, p. 419: "Die Dioskuren sind aber keine Götter bestimmter Geschlechter; ihre Kult ist vielmehr ein Hauskult, zu dem jedermann die gleiche Berechtigung hatte. Damit stimmt die Form des Opfers, denn auch die Theoxenien sind ein Opfer. Den Hausgeistern wird ihre Nahrung von den Hausgenossen dargebracht; man wird versucht die Hauskölde des germanischen Glaubens und die ihnen vorgesetzten Mahle zu vergleichen."

² They are, however, sometimes termed 'Εφέστιοι. See Lobeck, *Aglaophamus*, p. 1237.

³ For a possible explanation, see Trumball, *Threshold Covenant*, p. 22.

⁴ Several Pompeian houses show traces of *lararia* or similar shrines near the entrance. So Mau (*Röm. Mitt.* VIII, 1893, p. 7; see also p. 9, casa c; Overbeck⁴, p. 315; *Gior. degli Scavi*, 1870, p. 10) notes of a house in Pompeii without compluvium or impluvium that immediately to the right on entering the door was a low altar with traces of fire, while above was a niche in the wall for the Lares. An interesting passage from St. Jerome (*In Esaiam* c. 57, Vol. III, p. 418, ed. Bened.) proves for late antiquity the presence of statues of the goddess Tutela at the entrances both of private houses and of insulae. This goddess appears occasionally (*C. I. L.* II, 4082; *Eph. Epig.* IX, 440) with the Lares, and in such cases is evidently a deification of their protecting power. It is possible that Propertius, IV (V), 8, 50, may refer to a shrine of the Lares at or near an entrance. It should be noted that the first part of the passage from Jerome, though used by De-Marchi, Marquardt and Mommsen to prove the presence of the Lares near the entrance, refers, as the context shows, to the Israelites and can only by inference be applied to the Romans.

⁵ I, 68.

⁶ Babelon, *Monnaies de la Répub. rom.* I, p. 155, No. 2.

⁷ Ibid. II, p. 471; I, p. 503.

⁸ 'Die Überlieferung über die röm. Penaten,' *Hermes*, XXII, 1887, p. 32.

correct, the very ancient interest of Tusculum in the Dioscuri would argue for the early adoption of the type there. It may therefore have seemed to the Romans that the Penates had, as it were, a prior right to identification with the Dioscuri, and that, as confusion existed, another equation for the Lares must be found.

An existing type was apparently ready at hand, for a fragment of the *Tunicularia* of Naevius¹ recalls the painter *Theodotum compellas* [*compella* Scaliger] . . . *qui aras Compitalibus sedens in cella circumtectuas tegetibus Lares ludentis peni pinxit bubulo*. If the usual interpretation of this passage is correct,² even before the time of Naevius the Lares were represented in some such jovial guise as their later Pompeian brethren present. It was, of course, just at this period that attempts to equate Greek and Roman divinities began to be frequent.

The usual explanation is that given by Wissowa,³ that the so-called "dancing Lares" are derived from a late Greek type of Bacchus probably common in South Italy in Naevius's day.

We may note first that the figures of the Lares do not so much resemble the ordinary conceptions of Dionysus as they do those of members of the wine-god's train. Friederichs⁴ has remarked the subordinate character of the "dancing Lares" and the way in which they group themselves on either side of the Genius as the main figure. Now if the idea of the evolution of the Lares presented in this article is correct, they were not at first subordinated to the Genius or any other divinity, but appeared in indefinite numbers at the *compita* as protectors of the adjoining estates and as representing the cult of the ancestors. It was not, indeed, until after the reforms of Augustus that the Genius became common as the central figure. Whence, then, their peculiar lack of independence?

It is not likely to have been a later development, derived from association with the Genius, for the type, if we may trust Naevius, was an early one.

A study of the Dioscuri, such as I have previously attempted,⁵

¹ Ribbeck, *Com. frg.* 99 ff.

² A different interpretation is given by Ehrlich, *Ztschr. f. vergl. Sprachf.* XLI, 297 f.

³ 'Monumenta ad religionem Romanam spectantia tria,' *Ann. dell' Inst.* 1883, pp. 159 f.; *Rel. u. Kult.* p. 172.

⁴ *Op. cit.* p. 439.

⁵ *A. J. A.* XXIII, 1919, pp. 1 ff.

shows that pairs of divinities are quite likely to be subordinated to a central and more important god. Does the explanation of our problem lie in the influence of the other class of Lares, already equated with the Dioscuri? In favor of this answer would be the fact that the "dancing Lares" are two in number like those on the coins of the gens *Caesia*, where the influence of the Dioscuri is apparent. We might then see a sort of transition-type in the statue of a dancing youth in the Louvre¹ who is clothed in a skin tunic, girt apparently with an animal's tail. He holds in his right hand a rhyton terminating in a dog's head and in his left a patera. Longpérier identifies the bronze as a Lar, though, as in the case of many similar figures, there is no inscription to assure us as to the intention of the sculptor.

But if this conjecture is justified, why was the Dionysiac type chosen for the Lares? Wissowa's idea that the Lares in this aspect are heralds of the mirthful Compitalia is hardly applicable. In fact his inference as to the joyousness of the Compitalia is not supported by his references.²

A more profitable line of investigation would seem to be the study of a possible relation between the Lares and Liber, originally a *Genius genialis*, embodying the concept of creative fullness.³ In the cult of Liber, as in the traditions associated with the *Lar familiaris*, the phallus played an important part; Liber, like the Lares, received worship at the crossroads;⁴ and the later merging of Liber and the Greek Dionysus might foreshadow the type of the "dancing Lares." The number and subordinate character of the "dancing Lares" would, according to this supposition, be derived from connection with the Dioscuri; the type from the resemblance in nature between the Lares and Dionysus-Liber.

Much more satisfactory, however, would be a derivation which should include the two elements. If we could find a pair of Greek deities of subordinate character, who might be represented in a

¹ Longpérier, *Notice des bronzes antiques*, p. 103, no. 464; Daremberg et Saglio, s. v. *Diphthera*, fig. 2451.

² *Rel. u. Kult.* p. 167^o. Even if we grant that such a phrase as *uncta Compitalia* (Virg., *Catal.* XIII, 27) points to a lavish and therefore joyous banquet, we must acknowledge, as Samter points out (*Arch. Rel.* X, 1907, pp. 384 f.), that a noisy feast is, even in modern times, by no means incompatible with a celebration in honor of the dead.

³ *Rel. u. Kult.* p. 120; see Reifferscheid, *Annali*, 1863, p. 134.

⁴ Augustine, *De Civitate Dei*, VII, 21.

guise suggesting a Dionysiac type; if we could prove that these deities resembled the Lares in function to an extent sufficient to warrant identification; and, finally, if we could show that these divinities were known in Italy about the time of the Hannibalic War, we might with a fair degree of probability assume the derivation from them of the "dancing Lares."

These specifications are, I think, fulfilled by the Cabiri or Megaloi Theoi.¹ The cult attained a great reputation in Rome even in Republican times, as is shown by the offering made at Samothrace by Marcellus, conqueror of Syracuse.² The widespread identification in the Hellenistic period of the Samothracian Cabiri and the Dioscuri combined with the stories of Aeneas to produce the Roman equation Cabiri=Dioscuri=Penates. As we have seen, the Penates in their shrine in the Velia were portrayed as Dioscuri, and the inscription in the temple described them, like the Cabiri, as *Magni di*.³

This particular type of Dioscuri-Cabiri, though chosen also for the Lares, could not, I have concluded, persist because of the inevitable confusion which would arise between the Lares and the Penates.

But there were many other Cabiric cults beside that on Samothrace, and the surprising variations which occur in the other centres were combined with true eclecticism by Roman worshippers. So in an inscription⁴ found on Imbros the dedicant, a Roman as Bloch has observed, has heaped upon the Cabiri a singular jumble of complimentary epithets:

Θεοὶ μεγάλοι | θεοὶ δυνατοὶ | ἰσχυρροὶ καὶ | Κασμεῖλε | ἄναξ Πάτ[εκ]οι⁵
Κοῖος | Κρείος Ὑπερείων | Εἰλαπετός | Κρόνος.

The inscription produces, as Keil⁶ well remarks, the effect of an Orphic prayer,—an effect which is increased by comparison with Orphic fragment VIII:

τίκτει ἡ γῆ . . . παῖδας . . . ἄλλους τοσούτους,
Κοῖόν τε Κροῖόν τε μέγαν, Φόρκύν τε κραταῖόν,
καὶ Κρόνον, Ὀκεανόν θ', Ὑπερίονά τ', Ἰαπετόν τε.

¹ The identification of the Lares with the Curetes and of these with the Cabiri was frequent in antiquity. See Lobeck, *Aglaophamus*, pp. 1178, 1236.

² Plutarch, *Marc.* 30. For further evidence see *I.G.* XII, 8, pp. 38 ff.

³ Serv. *ad. Aen.* III, 12.

⁴ See Bloch in Roscher, *Lexikon*, s. v. *Megaloi Theoi*, p. 2533.

⁵ Friedrich reads πᾶτ[ρι]οι. See Kern, in *Pauly-Wissowa*, s. v. 'Kabeiros und Kabeiroi,' p. 1410.

⁶ *Philologus*, suppl. 2, p. 601.

In harmony with this impression is the fact that on Samothrace the two Cabiri were often regarded as Dionysus and Zeus,¹ while at times Dionysus was called "son of the Cabir."² In Thebes, too, Dionysus was the centre of the cult.³

At Lemnos, on the other hand, perhaps the most ancient home of the Cabiri, they were represented as subordinate protecting spirits, guardians especially of the vintage.⁴ These Lemnian Cabiri are introduced by Nonnus (*Dionys.* XIV, 17 ff.) into the army of Dionysus. On this island the chief Cabir was Hephaestus who seems also to have been recognized as one of the Cabiri of Samothrace.⁵

A Cabir represented with the attributes of this Lemnian Hephaestus would suggest a Dionysiac type,⁶ as is evident from the coins of Thessalonica, some of which,⁷ with the inscription KABEIPOΣ, show on the obverse the head of a laureate youth r., with a hammer on his left shoulder, while others⁸ display on the reverse a youth similarly inscribed, standing l., clothed in a short chiton or *exomis*, with a rhyton in his right hand and a hammer or double-axe in his left (Fig. 3).

Although all the evidence from Thessalonica is of late origin, there are indications that the cult itself was ancient.⁹ At any rate, types of the sort represented on these Macedonian coins



FIGURE 3.—CABIR: COIN OF THESSALONICA.

¹ Schol. Apoll. Rh. I, 917; *Etym. Gud.* 289, 20; *Etym. Magn.* 482, 27.

² Cic., *De Nat. Deorum*, III, 58; Ampel. 9; Lydus, *de mens.* 4, 51 (ed. Wuensch).

³ Kern, *Arch. Anz.* 1893, p. 129.

⁴ Lobeck, *Aglaophamus*, pp. 1207 ff.

⁵ Herod. III, 37; Bloch, *l. c.* p. 2525; but cf. Kern, *Pauly-Wissowa*, s. v. 'Kabeiros und Kabeiroi,' pp. 1422, 1427.

⁶ For abundant references to prove the close connection between Hephaestus and Dionysus, see R. Pettazzoni, 'Le origini dei Kabiri nelle isole del Mar Tracio,' *Mem. R. Accad. dei Lincei, Classe di Scienze morali, storiche e filolog.*, Serie V, XII, 1909, pp. 717 f. This is not the place to discuss the reason for the resemblance between the Cabir, Dionysus, and Hephaestus. This resemblance I believe to be fundamental and due to the development of the three divinities from a common origin.

⁷ E. g. Mionnet, *Description de médailles antiques*, I, p. 491, no. 303; cf. Suppl. III, p. 119, no. 743.

⁸ *Brit. Mus. Cat. of Coins, Macedonia, Thessalonica*, p. 113, 47 (Imperial).

⁹ See below, p. 258, note 6 and Cook, *Zeus*, I, pp. 104 ff.

suggest a possible origin for the Dionysiac Lares, and I would add the further suggestion that many of the quiet standing figures, which in dress and attributes resemble the Lares but lack inscriptions to make the attribution certain, may in reality be Cabiri. The singleness of these figures, influenced, if my supposition be correct, by the type of the single Cabir, may have appealed to the Romans as a congenial reminiscence of the original *Lar familiaris*.

In discussing the possible effect of Dionysus-Cabir upon the Lares, we may remember, too, that in the tale of Attus Navius¹ the shrine of the Lares is in a vineyard and grapes are offered to them, and that Liber, who like Dionysus was called son of the Cabir, was himself sometimes numbered among the Cabiri.²

With the Cabiri or Corybantes of Macedonia was associated a piteous story which bears undoubted resemblance to the Orphic tale of Zagreus. Christian propagandists³ recited with horror the murder by two brothers of a third, identified with Dionysus by Clement, and the burial of the victim at the foot of Mount Olympus. In Clement's version, the head only received burial; the *membrum virile* was transported by the murderers to Etruria.⁴

With this story in mind, it is interesting to note the tripling of the Dioscuri-type which occurs frequently on Etruscan mirrors.⁵ Whether in such cases the three youths are in truth a reminiscence of similar Greek groups of the three Cabiri we may leave doubtful.⁶ That some knowledge of the Theban and Samothracian cult-legends was current in Etruria seems proved from the mirror (Gerhard, pl. CXXXVIII) where Prometheus sits on his rock between "Castur" and "Calinice" who hold in their hands the symbol of the Titan's punishment,⁷ the iron ring⁸

¹ Cic. *De Div.*, I, 31; Dion. Hal., III, 70.

² Lobeck, *Aglaophamus*, p. 1208.

³ Firm. Mat., *De Err. Prof. Rel.* 11; Clem. Alex., *Protr.* II, 19, 1-4, p. 15, 1 ff. (ed. Stählin).

⁴ For a connection between the Tarquins and the gods of Samothrace, see Macr. III, 4, 7.

⁵ E. g. Gerhard, *Etruskische Spiegel*, pl. LV.

⁶ The mirrors may indicate the ancient origin of the cult-legend told by Clement and the other propagandists in regard to the Cabir of Thessalonica.

⁷ Welcker, *Trilogie*, p. 51; Kern, *Arch. Anz.* p. 130; Serv. in *Virg. Ecl.* VI, 42; Pliny, *N. H.* XXXVII, 2.

⁸ Two rings according to Cook (*Zeus*, I, p. 328⁹); a ring and gem according to Terzaghi (Milani, *Stud. e mat.* III, p. 213).

which was one of the distinctions of the *mystae* of Samothrace.¹ At any rate, the common occurrence in Etruria of the so-called Cabiric mirrors would increase the probability that the Romans also were familiar with groups in which two youths resembling the Dioscuri surrounded a third, more prominent, figure.

On many mirrors,² furthermore, one of the "Dioscuri" appears with the inscription Laran. Etymological connection between Laran and Lares has been affirmed by Corssen.³ The possibility of an equation made by the Romans, justified or not justified by etymology, is strengthened by the comparison which Thulin has undertaken between Martianus Capella's account of the wedding of Mercury and Philology where the gods are divided among sixteen different regions of the heavens, and the names of divinities on the bronze liver of Piacenza.⁴

Martianus, I, 46 reads:—*In secunda itidem mansitabant praeter domum Iovis, quae ibi quoque sublimis est, ut est in omnibus praediatus, Quirinus Mars, Lars militaris; Iuno etiam ibi domicilium possidebat, Fons etiam, Lymphae diique Novensides.* The same conjunction of the Lares with Mars, Fons, and Juno is noticeable in the *lustrum missum* of the Arval Brothers.⁵

In the corresponding position to the *Lar militaris* on the bronze liver appears the Etruscan *leθn* or *leθam*, a deity for whose association with Laran see *Etruskische Spiegel*, V, p. 12. The mirror referred to was seen by Corssen, who describes the figures upon it as almost destroyed. He was able to decipher the inscriptions *Uni, Menrva, Tinia, leθam, Laran, . . . arna*,—which prove the scene to have been the Birth of Menrva-Athena.

If one tries to explain the presence of *Leθam*=*Lar militaris* in a birth-scene, one is led to remember the frequent appearance on similar mirrors of the Dioscuri at the birth of Minerva. As the Dioscuri resembled in type the Lares, it seems likely that *Leθam*=*Dioscur*. But on the mirrors Laran also appears as

¹ Lucretius, VI, 1044; Pliny, *N. H.* XXXIII, 23. The story of Prometheus, as Kern remarks, is traceable to Lemnos where, it will be remembered, an inscription in a language seemingly akin to Etruscan has been discovered. Proof of the worship of the Cabiri among the Etruscans may also be derived from Dion. Hal. II, 22, 2.

² Gerhard, *Pls.* CCLV, c; LIX, 2; CCLVII, c, 1; XC; CCLXXXIV, 1 and 2; Vol. V, p. 12; pl. 84, 2.

³ *Sprache d. Etr.* I, p. 252.

⁴ C. Thulin, *Götter d. Martianus Capella*, pp. 42 ff.

⁵ See Pauly-Wissowa, s. v. *Arvales Fratres*, pp. 1481 f.

a Dioscuric type, and therefore Laran may equal *Lar militaris*.¹

The chthonic nature of the Cabiric cults, particularly on Lemnos and Samothrace, the legends involving the Cabiri and Hecate, goddess of the crossroads,² and the connection of Dionysus with the cult of the dead may have contributed to the assimilation of the Lares and the Magni Di.

Among the features of the Samothracian worship were solemn dances in stately measure.³ Such dances are appropriate to all deities of fertility, such as the Lares.⁴

If, as Wissowa considers, the legends of Ocrisia and similar tales, which give Vulcan as an alternative for the *Lar familiaris*, are of late origin and due to Greek influence, we may trace to the same influence the head and pincers of Vulcan above the Lares on the coins of the *gens Caesia*, not regarding these symbols with Fowler⁵ merely as a moneyer's mark, but as derived from the connection of the Cabiric type with Hephaestus.⁶

When the abuses of the *collegia compitalicia* led to the reforms of Augustus, the emperor's conservatism would induce him to change as little as possible the form in which the *Lares Compitales* already existed. To avoid confusion with the Penates, the Dionysiac type must be favored for the new Lares, rather than the Dioscuric type. But if Augustus were familiar with Etruscan representations of the Dioscuri or Cabiri grouped as *paredroi* on either side of a third more prominent brother, the possibilities, which lay in imitating such a group would appeal to him.

The association of the story of the three Cabiri with the Zagreus-myth, the worship accorded the third brother,⁷ and the

¹ We recall too that the tales of the phallic Lar and Ocrisia were localized in the palace of the Etruscan king, Tarquinius Priscus.

² On Samothrace, the Cabiri purify Hecate from sin (Schol. Theoc., *Id.* II, 12). See Lobeck, *Aglaophamus*, p. 1215, and Immisch in Roscher's *Lexikon*, s. v. *Kureten*, p. 1620.

³ Stat., *Achill.* II, 157; Conze, *Reise auf den Inseln des thrakischen Meeres*, pl. 12; *Neue Untersuchungen*, pl. 9; Rubensohn, *Mysterienheiligtümer v. Eleus. u. Samothr.* p. 133.

⁴ Otto, *op. cit.*, p. 119.

⁵ *Roman Festivals*, p. 351.

⁶ On a bronze coin of Claudius Gothicus (Cohen, *Monn. imp.*² VI, 137, 65) the Cabir bears a hammer and tongs; cf. H. von Fritze, 'Birytiis u. die Kabiren auf Münzen', *Z. Num.* XXIV, 1904, p. 126, and *B.C.H.* XIX, 1895, p. 110, n. 2.

⁷ Firmicus, *l. c.*: *Hunc eundem Macedonum colit stulta persuasio. Hic est Cabirus, cui Thessalonicensenses quondam cruento cruentis manibus supplicabant.*

fact that the Roman Lares were the heroized dead would all facilitate the apotheosis of the Genius which Augustus inserted between the gods of the crossroads, and lead by rapid yet imperceptible steps to the deification of the Emperor.

MARGARET C. WAITES.

MOUNT HOLYOKE COLLEGE,
SOUTH HADLEY, MASSACHUSETTS.

FURTHER NOTE ON THE ERUPTION OF VESUVIUS IN 79 A.D.

IN an article published in this JOURNAL in 1918 (Vol. XXII, No. 3), dealing with certain phaenomena exhibited by Vesuvius in the famous eruption of 79 A.D., I raised again the question whether the Italian volcano might not have belched out against Pompeii such a fiery blast as that from Mont Pelée which in 1902 destroyed the city of St. Pierre in Martinique. This suggestion I had first made long ago in my notes on the sixteenth and twentieth letters of Pliny's sixth book, published in 1903 in my edition of selections from that author's correspondence (London, Macmillan and Co.). The notes concerned were written soon after the great eruption of Pelée, and were actually in print, though not yet issued, before the observations of Professor Angelo Heilprin on the eruption appeared.

Recently this repeated suggestion of mine has been mentioned with some courteous demur in an article on 'The Past Decade of Pompeian Studies' in the *Classical Journal* for April, 1920 (Vol. XV, No. 7) by Mr. A. W. Van Buren, of the American Academy in Rome. His objections are such as might naturally occur to a scholar especially versed, as he is known to be, in Pompeian archaeology. The subject concerned is of so perennial and dramatic interest, both scientifically and historically, that I shall probably be pardoned for some comment on the objections, though I should like to disclaim any distinctly partisan attitude on what is possibly an insoluble problem. Yet progress toward a solution can only be made through discussion and the interchange of criticism.

In the first place Mr. Van Buren remarks that "if there was a hot blast it came not as one would have expected at the beginning but at an advanced stage of the eruption." It is quite true that, if it came at all, it came not at the beginning but at the time of the recrudescence of the eruption and at its most violent point. This increase of violence is plainly marked in Pliny's description, and occurred after a depth of *lapilli* to the measure of several

feet must have already fallen on the doomed city, and when thereby the lower portions of the walls of the buildings were protected and braced against any violent horizontal impact through the air. Most of the inhabitants had already fled beyond the gates. I do not know why Mr. Van Buren thinks "one would have expected" otherwise, unless he has not familiarized himself with the accounts of the Martinique eruption. That is the only instance of a catastrophe of this character thoroughly known to modern observers. On it alone can be founded any judgment about what one might expect in a similar case, unless we may also draw safe conclusions from the less familiar eruption of the Japanese volcano Bandaisan, in 1888, which seems to have been of like character. In the Martinique eruption the sequence of events corresponded in all essential aspects to that postulated by my hypothesis at Pompeii. Mont Pelée after an almost unbroken quiescence of unrecorded centuries had now been in lively eruption for some days; the phaenomena were increasing in violence; the surrounding country, including St. Pierre itself, had already been deluged with ashes; then came the terrific blast, followed twelve days later by yet another of similar intensity that completed the devastation. The like fiery tornado that destroyed Morne Rouge occurred after a still further interval of more than three months, during which time the mountain had never ceased to exhibit volcanic action of varying character and intensity. Certainly, then, there is no reason for the presumption that such a fiery blast at Pompeii must have come, if at all, at the beginning of the eruption of Vesuvius. The justified presumption lies quite in the contrary direction, and is not in the slightest degree repugnant to my suggestion, but on the other hand quite consonant with it. Of course this is not to say that such a hot blast could not issue at the initial stage of an explosive volcanic eruption. It is only to say that at Martinique it did not, and that in the nature of things there is no reason why it should mark the first outbreak, when, indeed, its violence might be chiefly expended in rending the rock-masses opposing its free exit. Both observation and theory are fatal to Mr. Van Buren's presumption.

My critic further objects (for it is apparently meant as an objection to the notion of a hot blast at Pompeii) that "its effects were very unevenly distributed." The sentences that immediately follow in his review appear to contain the specifications

that he has in mind under this general head. I could not have arrived at them from conjecture, for the effects of the blast would have appeared to me to be in all but one particular very evenly distributed, so far as we are now able to discern them. But Mr. Van Buren's specifications are, (1) that most of the inhabitants of Pompeii evidently had time to escape without the walls, and had actually thus escaped; (2) that those who were finally overwhelmed within the city "had lived, as a rule, through the shower of pumice-stones (*lapilli*) and into the rain of volcanic dust (*cineres*)"; (3) that the plastered walls discolored possibly by heat may have been thus affected by local conflagrations; and (4) that such substances as hemp, wood, and lead have been found in such condition as would not suggest that they have been subjected to the action of intense heat.

It is evident that of these four points, which are all indubitable as to fact, the first two are of force against my suggestion only on the presumption that the hot blast must have come, if at all, at the beginning of the eruption. On that presumption these two objections would, to be sure, be damning. The hot blast could not have had the other effects noted and yet have spared human life almost entirely. But I have pointed out that the underlying presumption about the time of the blast is itself unjustified. The objections founded upon it therefore fall to the ground.

With regard to the third of Mr. Van Buren's objections it may be remarked that the utmost extent to which the postulation, if otherwise reasonable, of a uniform local-conflagration cause could go in rebuttal would be to indicate that it is unnecessary to suppose a hot blast in order to account for the discoloration of yellow wall-pigments, the uneven distribution of which phae-nomenon could more simply and with greater satisfaction of the principle of logical uniformity be assigned to the agency of local conflagrations. It cannot be asserted that to postulate a hot blast as the cause of the discolorations is to propose a less simple and probable cause in place of one more simple and probable. Had it not been for the disaster at Martinique, it would, to be sure, have appeared most wildly improbable, and even impossible, that such a blast could have swept Pompeii: since the event of 1902 it should not appear at all improbable *per se*, but quite possible. Yet one's judgment of the degree of probability of the actual occurrence will of course depend on the conclusions to be drawn

from the entire range of observed phenomena, and on the consideration whether any other single hypothesis, or combination of hypotheses, will equally well or better explain all the facts of present observation or past record. Certainly not all of them have been satisfactorily explained by the varying methods hitherto favored.

It is not entirely satisfactory to suggest merely that the discolorations may have been due to local conflagrations. In order to be most effectively in point on the present issue it would be necessary to prove, (*a*) that in all the cases where the discoloration has been observed there were actually such local conflagrations; (*b*) that the discoloration could not equally as well have been caused by a hot blast; (*c*) that the local conflagrations could not have been themselves started by such a blast. I note with interest that Mr. Van Buren apparently does not hold the late Professor Mau's belief that the discoloration is due to some mysterious slow chemical action. It certainly is inexplicable on this theory to find the oxydization working in some houses and not in all. Of the apparently selective action in this particular of a postulated hot blast I shall speak further on.

Now it may be that in those houses with marked change of yellow-ochre wall-pigments to red there are also found other indubitable signs of local conflagrations that are not to be found elsewhere. But I do not know of satisfactory evidence to this effect. I could not get it from printed records of the excavations nor from my own observation. I would by no means assert that it does not exist, though Professor Mau apparently did not think it exists, for he accounted for the discolorations otherwise. But it will be noted that in order to be satisfactory the evidence must be independent of the present state of the walls themselves (the cause of which condition is the matter at issue), and it must be such as does not exist in the case of buildings with no such discolored walls, unless indeed there can be shown sufficient reason for the variation of appearance under similar conditions. Until such evidence is forthcoming it is no argument against belief in the possible occurrence of the suggested hot blast to point out that the observed discolorations might have been caused by local conflagrations, especially if it cannot be proved that these were not themselves caused by a hot blast.

The only strong objection to the theory of a superheated tornado as the cause of the discolorations might be that only in oc-

casional houses has such discoloration been noted in any extensive measure, while there might be no apparent reason why the postulated hot blast should not have reddened the yellow-ochre pigment in all houses thus decorated, if it did so in any. To this it is reasonable to say that the walls would be likely to show marked discoloration only in cases where the accumulated *lapilli* had left them still exposed, on account of some local circumstance now perhaps untraceable. I should, however, like to examine again the extant reddened walls with this point in mind. It would also be interesting to make the actual test whether pieces of Pompeian yellow walls, if exposed for an instant to extremely high temperature, or for a longer time to the heat of a bonfire in close proximity to them, would undergo the reddening change of color. But the specimens from Pompeian walls that I possess are too valuable to be used as the *corpus uile* of such experimentation. I may try it on blocks of plastering colored for the purpose with yellow-ochre pigment. It should be noted that such changes of yellow wall-coloring to red are definitely reported from St. Pierre, where, however, I cannot be certain that the change was due to the hot blast rather than to the resulting conflagrations. There may also have been at Pompeii mere freakishness in the action of a hot blast, as I have mentioned below. And I could, if necessary, surrender to the local-conflagration theory (which Mau held as a fact, but rejected as the cause of the color-changes) all the cases of discoloration, without finding it necessary to withdraw the suggestion of the hot blast to account for possibly the starting of the local conflagrations themselves, and certainly for many other—perhaps for all the other—observed phaenomena that are pertinent to the case.

On the fourth point—that of the occasional preservation of hemp, wood, lead, and like destructible or fusible substances—I may remark that it has been my strong impression that as a rule, if not invariably, where substances like these have survived in good condition, it has been either under the especial shelter of masonry, or at the lower level, where the deep stratum of already fallen *lapilli* would offer protection against the momentary effects of great heat. I still retain that impression. But even if it is wrong, the cases of the preservation of exposed substances of the sort mentioned must be relatively very few, so few that they might be reckoned among the unaccountable vagaries of the fiery tempest. Such freaks of partiality in conservation occurred

in considerable numbers at St. Pierre, and attracted the attention of various observers. Some of the scorched bodies, for example, were found stripped of their clothing (possibly, to be sure, not by fire but by the mechanical force of the blast), while other bodies were terribly burned under their clothing, while the clothing itself was uninjured. Doubtless in many instances, if not in every instance, of such apparent freakishness in treatment it might have been possible at the time to determine a sufficient reason for the discrimination from the circumstances of relative exposure. The same investigation might well be possible at Pompeii, in so far as there were instances there of similar difference of effect upon readily destructible objects above the level of the *lapilli*. A general comment of Professor Heilprin is perhaps worth quoting: "A scorch-blast that clears all human life before it, and leaves in places untouched objects that are normally thought to be most destructible, has many things for its characteristics which science has still to learn" (*Mont Pelée and the Tragedy of Martinique*, p. 120).

These brief paragraphs must serve as answer to the observations of necessity so briefly put forth in Mr. Van Buren's review. To me they appear to be sufficient answer. And I note that my friendly opponent (if he is really an opponent, and not merely a naturally and properly hesitant comrade) said nothing about a number of other points in my former article that appeared to me of greater importance in their bearing on the main question. I must, by the way, object to his pure assumption that the total wrecking of the exposed portions of most structures that projected above the lower strata of ejecta (those of *lapilli*) was due to the earthquakes mentioned by Pliny. It may have been so. But, to judge from St. Pierre, a blast of the Martinique intensity would have done the business quite as effectively—indeed, I am inclined to think even more effectively. For the earthquake must have worked mainly through the ground. It could hardly, I should think, have been effectively propagated through the loose blanket of freshly deposited and uncompacted bits of light pumice (the *lapilli*). Yet the only parts of walls that were shattered into fragments were those that projected above the *lapilli*. The portions of walls below were practically uninjured. If the earthquake caused the wreck, could the light and loosely lying pumice so brace the parts of the walls against which it was piled as to defend them perfectly from the stress of a force working in

a horizontal back-and-forth movement (cf. Plin. *Ep.* VI, 16, 15) communicated chiefly through their solid foundations? Could this apparently slight support be responsible for such a marked difference between the fates of the lower and of the higher portions of the walls? On the other hand, the postulated blast would readily shear away uncovered portions too suddenly to permit the force to be communicated to the already buried parts.

I would also reëmphasize my remark on the small amount of wood preserved in the ruins—unexpectedly small in amount and curious in its charred aspect, if we are to believe that there was no superheated blast, and that there were only isolated and occasional conflagrations, none of them involving any considerable areas.

ELMER TRUESDELL MERRILL.

THE UNIVERSITY OF CHICAGO.

A NEW DOCUMENT FOR THE CEPPO HOSPITAL MEDALLIONS

THE decorations of the portico of the Ceppo Hospital at Pistoia have long afforded a battle ground for art historians. They have been attributed to almost every member of the Robbia school. In the *Brickbuilder* for 1890, pp. 222-224, I maintained that the medallions and half medallions, and they alone, should on stylistic grounds be attributed to Giovanni della Robbia. Milanese had already stated that the archives of the hospital show that Giovanni della Robbia received payments between 1525 and 1529, with no record of the sum paid nor of the object for which payments were made. A careful examination of the archives of the Ceppo hospital and of the mother hospital, S. Maria Nuova, Florence, resulted in the discovery of various sums received by Giovanni, and one of the objects is described as "*uno tondo dalla rubie.*" These records were copied by my friend Mr. Rufus G. Mather, and published by him in *L'Arte*, XXI, 1918, p. 196, IV, and by myself in *A. J. A.*, XXII, 1918, pp. 361-377.

Mr. Mather has just discovered at S. Maria Nuova a new and important document, which definitely connects the name of Giovanni della Robbia with the medallions of the Ceppo hospital. These medallions (*rotundi*) are described as five full medallions of glazed terra-cotta ornamented with figures or coats of arms and four half medallions of the same material. Two of them were to be delivered during the month of March, 1525, and the rest by May, 1526. Giovanni was to be paid at the rate of four and a half golden florins for each medallion. The record shows that Giovanni continued to receive payments until 1529, the year of his death.

As the porch of the Ceppo hospital still displays five full medallions, (1) the Annunciation, which bears the date MDXXV, (2) the Visitation, (3) the Assumption, (4) the Ceppo coat of arms, (5) the arms of the Medici family, and four half medallions with arms of the Ceppo hospital or of the city of Pistoia, there can be

now no uncertainty as to the part played by Giovanni della Robbia in the decoration.

DOCUMENT: [Discovered and copied by Mr. Rufus G. Mather.]

"1525 Indiet(ione) 14

.....

.....

.....

(In margine: Locatio sculpture)

Item postea dictis a(n)no Jndiet(ioni) loco et die x mensis martij p(rese)nt(i)-bus Paulo olim Nicci (Niccolai) d(e) bencis et Bartolo olim franc¹ Savellis civibus florent testibus etc

R(everen)dus in xpo(eristo) p(ate)r d(omi)n(u)s L^{dus} bonafidej hospitalarius et rector hospitalis S^{te} Marie Cippi d(e) Pistorio p(er) se et suos in d(i)c(t)o hospitali successor (i)s et o(mn)i met(iori) mo(do) etc locavit Johan(n) j olim Andree marci d(ella) robbia scultori d(e) florentia

1525 Indiet 14¹

p(rese)nti et conducenti etc ad laborandum et intagliandum quinque rotu(n)dos terre cocte i(n)vetriate integros cu(m) intagliatione figurarum et armorum eo mo(do) et forma et scultura et eadem magnitudine unius rotundj quē d(e)dit scultū ēt itagliatū dicto dno L^{dō} dicto no(m)i(n)e Item quatuor medios eiusdem sortis q(ui) omnes circulj ascendunt ad su(m)ma(m) novē rotundorum qui Johan(n)es conductor p(ro)misit et sole(m)ni stipulatione convenit dicto dnō L^{dō} dicto no(m)i(n)e p(rese)nti et stipulāti eidem dare et tradere duos ex dictis rotūdīs itagliatos et p(er)fectos p(er) tu(tum) p(rese)nte(m) mēsē martij reliquos v(er)o p(er) tutū mēsē maij p(ro)ximi futuri 1526 et p(ro) eius labore et scultura p(ro)misit dictus dns L^{dus} dicto no(mi)n)e dare et solvere eidem Johan(n)i p(rese)nti et stipulātj ut s(upra) flor aurj quatuor cū dimidio lar d(e)auro i auro p(ro)q^{olibet}(quolibet) rotundo cum pacto inito inter dcās p(ar)tes q(uod) si dictus Johannes nō daret eidem dnō L^{dō} dictos rotūdōs p(er)fectos dictis temporibus possit dictus L^{dus} ut s(upra) liceat locare alijs quibus voluerit et placuerit impensa dicti Johan(n)is que o(mn)ia etc p(ro)-misit etc attendere etc sub pena flor xxv auri larg d(e) auro i auro que pena etc q^a(qua) pena etc p(ro) quibus etc obligavit etc renūtiavit etc cui etc p(ro) garantigia etc R(ogans) etc."

[Archivio del R. Arcispedale di S. M. Nuova. Rogiti di Ser Antonio di Michele di ser Migliore Migliorati, Protocolli 1524-1526, segnato F. II c. 100^e e 101.]

ALLAN MARQUAND.

PRINCETON UNIVERSITY.

¹ Heading of p. 101. The first word of the page is "p(rese)nti."

NOTES ON "LOST" VASES

IN *A.J.A.* XXI, 1917, pp. 409-416, I published a list of "lost" vases that I had succeeded in identifying in various museums and private collections. These were all vases published by Reinach in his "*Répertoire*." To that list I can now make the following additions and corrections.¹ The same abbreviations will be used as in the former article.

Mon. dell' Inst. XI, pl. 50. Now in the National Museum, Copenhagen.

Ann. dell' Inst. 1846, pl. M. Copenhagen, National Museum, 126.

1859, pls. G. H. Petrograd, Stephani 1641.

1878, pl. I, 1. Beazley² says that this vase is Louvre G206. The Bourguignon vase³, therefore, must be a replica.

'Εφ. 'Αρχ., 1890, p. 11. Vivanet Collection, Cagliari, Sardinia.

Coghill, 22, 1. Ricketts-Shannon Collection, London.

22, 2. *Hope Sale Catalogue*, 85, 2. Now in Ashmolean Museum, Oxford.

31, 1. Now in collection of Mr. S. M. Franck.⁴

A. V. 84-85. British Museum ES.

Since the Hope Sale a number of the vases in that collection have turned up in various museums and private collections. Most of these have been duly noted by Hoppin and Beazley, in the works cited, wherever they were vases that could be attributed to any of the different painters of the red-figured technique discussed by them. As their books are large and expensive, and perhaps not always as accessible to all students of vases as Reinach, I shall run the risk of repeating material already made public by assembling the Tischbein vases, the location of which has now become known. References to the Hope Sale Catalogue will not be given, as they can be found in my previous paper.

¹ These references are derived, for the most part, from a study of the material in the books of Beazley (*Attic Red-Figured Vases in American Museums*), and Hoppin (*A Handbook of Red-Figured Vases*) which have recently appeared, after checking them up with Reinach's *Répertoire*.

² *l. c.* p. 138.

³ See *A.J.A.* XXI, 1917, p. 410, under this reference.

⁴ *Hope Sale Catalogue*, 56, 2.

- Tischbein*, I, pl. 7. In the Fitzwilliam Museum, Cambridge.
I, pl. 14. In the possession of Miss Winifred Lamb.
II, pl. 21. Cory Collection, London.
II, pls. 22-23. In Collection of Hon. Marshall Brooke.
II, pl. 44. In Rhode Island School of Design, Providence, R. I.
III, pl. 7. In collection of Hon. Marshall Brooke.
III, pl. 11. In collection of John Ford, Esq.
IV, pl. 9. In collection of Hon. Marshall Brooke.
IV, pl. 21. In Museum of Fine Arts, Boston, Mass.
IV, pl. 37. In Ashmolean Museum, Oxford.
IV, pl. 41. In collection of Hon. Marshall Brooke.
IV, pl. 44. Reverse of IV, pl. 37.
IV, pl. 59. In Fitzwilliam Museum, Cambridge.

In my previous article, by an error for which I am responsible, *Tischbein*, V, 110, is printed for "*Tischbein*, V, 111."

STEPHEN BLEECKER LUCE.

UNIVERSITY MUSEUM,
PHILADELPHIA, PA.

EDITORIAL CHANGES

With the publication of the present number (Vol. XXIV, 1920, No. 3) Dr. JAMES M. PATON retires from the Editorial Board of the JOURNAL.

The new Editor-in-Chief will be Professor WILLIAM N. BATES, *220 St. Mark's Square, Philadelphia, Pa.*, to whom all articles and other communications for the Editors should be addressed.

The Department of Archaeological News, Discussions, and Bibliography will be conducted by Professor SIDNEY N. DEANE, *Smith College, Northampton, Mass.*

The business management remains in charge of the GENERAL SECRETARY, *Archaeological Institute of America, Columbia University, New York, N. Y.*

SUPPLEMENTARY NOTE TO *A.J.A.* XXIV, 1920, PP. 1-3

In my comments on prehistoric remains in the village of Old Corinth reference should have been made to finds reported by Dr. T. W. Heermance, *A.J.A.* VIII, 1904, pp. 440-441; and to the fact that Dr. A. L. Walker, who has undertaken the publication of the pottery from the main American excavations in Corinth, is in that connection making an exhaustive study of the prehistoric material, and adding to and controlling this by special excavations near the Temple of Apollo and west of the Agora. Some of the results of this investigation are known to me through Miss Walker's courtesy, but were of course not taken into account in my paper. The complete results promise to be of great importance and their publication will be awaited with much interest.

C. W. BLEGEN.

AMERICAN SCHOOL OF CLASSICAL STUDIES,
ATHENS, GREECE.

BIBLIOGRAPHY

OF

ARCHAEOLOGICAL BOOKS

1919

WILLIAM N. BATES, *Editor-in-charge.*

* * * Books, pamphlets, and other matter for the Bibliography should be addressed to Professor WILLIAM N. BATES, 220 St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

- A. E. Boak**, The Master of the Offices in the Later Roman and Byzantine Empires. New York, 1919, Macmillan. x, 160 pp. 8vo.—**E. Brandenburg**, Ueber Felsarchitektur im Mittelmeergebiet. Leipzig, 1915. 8vo. 8 M.—**Bureau of American Ethnology**, Thirty-third Annual Report, 1911-1912. Washington, 1919. Government Printing Office. 677 pp. 4to. Pp. 43-154. M. R. Gilmore, Uses of Plants by the Indians of the Missouri River Region; pp. 155-206. E. H. Morris, Preliminary Account of the Antiquities of the Region between the Mancos and La Plata Rivers in Southwestern Colorado; pp. 207-284. J. W. Fewkes, Designs on Prehistoric Hopi Pottery.—**David I. Bushnell, Jr.**, Native Villages and Village Sites East of the Mississippi. Bureau of American Ethnology, Bulletin 69. Washington, 1919, Government Printing Office. 111 pp.; 17 pls.; 12 figs. 8vo.
- O. A. Danielsson**, Zu den lydischen Inschriften. (Skrifter utgifna af K. Humanistiska Vetenskaps-Samfundet i Uppsala, 20:2.) Uppsala, 1917, A.-B. Akademiska Bokhandeln. 43 pp. 8vo.—**Dictionnaire archéologique de la Gaule; Époque celtique II**, 2-4. Paris, 1919, Imp. Nationale. Pp. 97-488. 4to.
- J. Walter Fewkes**, Prehistoric Villages, Castles, and Towers of Southwestern Colorado. Bureau of American Ethnology, Bulletin 70. Washington, 1919, Government Printing Office. 79 pp.; 33 pls.; 18 figs. 8vo.—**O. Franke und B. Laufer**, Epigraphische Denkmäler aus China. I: Lamaistische Klosterinschriften aus Peking, Jehol, und Si-ngan. Berlin, 1914. 81 pls. Folio. 120 M.
- Thomas W. F. Gann**, The Maya Indians of Southern Yucatan and Northern British Honduras. Bureau of American Ethnology, Bulletin 64. Washington, 1918, Government Printing Office. 146 pp.; 28 pls.; 84 figs. 8vo.
- F. Hansen**, Bildrag till Kännedomen om äldre megalitkeramiken i Skåne och Danmark; Materialsamling och analys. Lund, 1918, Blom. vi, 87 pp.; 16 pls. 7 fr. 60. 8vo.—**W. H. Holmes**, Handbook of Aboriginal American Antiquities. Part I. Introductory. The Lithic Industries. Bureau of American Ethnology, Bulletin 60. Washington, 1919, Government Printing Office. 380 pp.; 223 figs. 8vo.
- K. F. Johansson**, Ueber die altindische Göttin Dhisana und Verwandtes; Beitræge zum Fruchtbarkeitskultus in Indien. Uppsala, 1917, Akad. Bokhandel. 170 pp. 8vo.
- A. V. Kidder and S. J. Guernsey**, Archeological Explorations in Northeastern Arizona. Bureau of American Ethnology, Bulletin 65. Washington, 1919, Government Printing Office. 228 pp.; 97 pls.; 102 figs. 8vo.
- R. Lantier**, Inventaire des monuments sculptés pré-chrétiens de la Péninsule ibérique. Première partie (Lusitanie; Conventus emeriten-

- sis). Paris, 1918, de Boccard. 57 pp. 8vo. 20 fr.—**R. Leonhard**, Paphlagonia; Reisen und Forschungen im nördlichen Kleinasien. Berlin, 1915. 8vo. 20 M.
- Carl J. S. Marstrander**, Caractère indo-européen de la langue hittite. Christiania, 1919.—**S. Müller**, Stenalterens Kunst i Danmark. Copenhagen, 1918, Reitzel. 98 pp.; 282 figs. 22 fr. 50. 8vo.
- A. Norman**, Glossary of Archaeology, excluding Architecture and Ecclesiology. London, 1915, Talbot. 246 and 186 pp. 12 mo.
- H. Obermaier y P. Wernet**, Las pinturas rupestres del Carranco de Valltorta (Castellón). Madrid, 1919, Hernando. 134 pp.; 26 pls. 4to. 12 fr.
- E. Hernandez Pacheco**, La caverna de la Peña de Candamo (Asturias). Madrid, 1919, Imp. Clásica Españ. 281 pp.; 25 pls.; 185 figs. 4to. 40fr.—**A. Philippon**, Reisen und Forschungen im westlichen Kleinasien. 5. Heft: Karien südlich des Mäander und das westliche Lykien. Gotha, 1915. 8vo. 22 M.—**C. Praschniker und A. Schober**, Archäologische Forschungen in Albanien und Montenegro. Wien, 1919, Holder. v, 104 pp.; 116 figs.; map. 4to.
- Carl Robert**, Archaeologische Hermeneutik. Berlin, 1919, Weidmann. vii, 432 pp.; 300 figs. 8vo. 20 M.
- J. Strzygowski**, Die bildende Kunst des Ostens; einer Ueberblick über den für Europa bedeutungsvollen Hauptströmungen. Leipzig, 1916. 8vo. 2 M.
- A. M. Tallgren**, Collection Tovostine des antiquités préhistoriques de Minoussinsk conservées chez le Dr. Karl Hedman à Vasa: Chapitres d'archéologie sibérienne. Helsingfors, 1917, Puromiehen Kiriapaino. vi, 96 pp.; 12 pls. 4to.

EGYPTIAN ARCHAEOLOGY

- H. Bauer**, Zur Entzifferung d. neu entdeckten Sinaischrift und zu Entstehung d. semit. Alphabets. Halle, 1918. 8vo. 1 M. 80.—**H. Bonnet**, Die ägyptische Tracht bis zum Ende des Neuen Reiches. (Untersuchungen z. Gesch. Aegyptens, Bd. VII, H.2). Leipzig, 1917. 9 pls. 4to.
- E. Chassinat**, Mémoires publiés par les membres de la mission archéologique française au Caire. XI. Le temple d'Edfou, publié d'après les estampages recueillis par le marquis de Rochemonteix. 2^e partie. Chalon-sur-Saône, 1918, Imp. Bertrand. iii, 315 pp. 4to.
- A. Erman**, Beiträge zur ägyptischen Religion. Berlin, 1916. 8vo.—**A. Erman**, Die Hieroglyphen. Durchgesehener Neudruck. Berlin, 1917. 8vo. 1 M. 80.—**A. Erman**, Die Obelikenübersetzung des Hermapion. Berlin, 1914. 8vo.—**A. Erman**, Reden, Rufe, und Lieder auf Gräberbildern des alten Reiches. Berlin, 1919. 4to. 5 M. 25.
- H. Grapow**, Ueber einen ägyptischen Totenpapyrus aus dem frühen mittleren Reich. Berlin, 1915. 8vo.—**A. Grohmann**, Ueber den Ursprung und die Entwicklung der äthiopischen Schrift. Leipzig, 1915. 8vo. 3 M.
- K. Hoffmann**, Die theophoren Personennamen des älteren Aegyptens. Leipzig, 1915. 8vo. 15 M.
- L. Klebs**, Die Reliefs des alten Reiches (2980–2475 v. Chr.). Material zur ägypt. Kulturgeschichte. Heidelberg, 1915. 8vo. 12 M. 60.
- B. Meissner**, Des Staatsvertrag Ramses' II. von Aegypten und Hattusilis von Hatti in akkad. Fassung. Berlin, 1917. 8vo. 75 M.—**Ed. Meyer**, Aegyptische Dokumente aus der Perserzeit. Berlin, 1915. 8vo. 1 M. 50.—**G. Möller**, Zwei ägyptische Eheverträge aus vorsaitischer Zeit. Berlin, 1918. 8vo. 5 M. 25.—**Maria Morgensen**, Stèles égyptiennes au Musée national de Stockholm. Copenhagen, 1919, Hoest. 118 pp. 28 fr. 75. 4to.—**F. W. Müller**, Die anthropolog. Ergebnisse des vorgeschichtl. Gräberfeldes von Abusir et Meleq. Leipzig, 1914. 4to. 57 M. 60.

- Puran Ch. Nahar**, Jaina Inscriptions. I. London, 1919, Luzac. 256 pp. 4to.
- D. Paton**, The Annals of Thutmose III (early Egyptian Records of Travel, vol. III). Princeton, 1918, Princeton Univ. Press. 108 pls. \$15.00.—**F. Preisigke**, Fachwörter des öffentlichen Verwaltungsdienstes Aegyptens in den griechischen Papyrusurkunden der ptolemäisch-römischen Zeit. Göttingen, 1915. 8vo. 9 M.—**F. Preisigke** und **W. Spiegelberg**, Sammelbuch griechischer Urkunden aus Aegypten. Bd. I und II, 1. Strassburg, 1913–1918. 8vo. 82 M. 50.
- G. Roeder**, Inschriften des Neuen Reichs auf Särgen und Kleinfunden. Leipzig, 1914. 8vo. 15 M.—**E. de Rougé**, Bibliothèque égyptologique. XXVI. Oeuvres diverses. VI. Paris, 1918, Leroux. 427 pp. 8vo. 20 fr.
- L. Spence**, Mythen und legenden von Egypte. Zuthphen, 1919, Thieme. viii, 396 pp. 8vo. 12 fr.—**W. Spiegelberg**, Der ägypt. Mythos vom Sonnenauge in einem demot. Papyrus der rom. Kaiserzeit. Berlin, 1915. 8vo. 1 M. 50.—**W. Spiegelberg**, Der ägypt. Mythos vom Sonnenauge (der Papyrus der Tierfabeln—"Kufi"). Nach dem Leidener demot. Papyrus I, 384 bearb. Strassburg, 1917. Folio. 125 fr.—**W. Spiegelberg**, Die sogenannte Demotische Chronik des Papyrus No. 215 der Bibliothèque Nationale zu Paris. Leipzig, 1914. 4to. 72 M.—**G. Steindorff**, Urkunden des ägyptischen Altertums. In Verbindung mit K. Sethe und H. Schäfer hrsg. V. Abt.: Religiöse Urkunden. Heft 1–3: Texte, Ausgewählte, des Totenbuches. Bearb. von H. Grapow; I–III. Autograph. Text und deutsche Uebersetzung. Leipzig, 1915–1917. 8vo. 27 M.—Deutsche Uebersetzung. Heft 1: Urkunden der 18. Dynastie, bearb. und übers. von K. Sethe. Leipzig, 1914. 8vo. 6 M.
- F. Weindler**, Geburts- und Wochenbetts-Darstellungen auf altägypt. Tempelreliefs. München, 1917. 8vo. 8 M. 75.—**A. Wirth**, Vorderasien und Aegypten in histor. und polit., kultureller und wirtschaftl. Hinsicht geschildert. Stuttgart, 1916. 8vo. 11 M.—**W. Wreszinski**, Atlas zur altaegyptischen Kulturgeschichte. Lfg. 1–5. Leipzig, 1914–1915. 4to. Subscriptionspreis pro Lieferung, 9 M.

ORIENTAL ARCHAEOLOGY

- Altorientalische Texte und Untersuchungen**, hrsg. von Bruno Meissner. Heft 1: B. Meissner, Assyriologische Forschungen, I; Heft 2: F. Schmidtke, Asarhaddons Statthalterei in Babylonien; Heft 3: W. Caspari, Tronbesteigung und Tronfolge der israel. Könige; Heft 4: S. Geller, Die sumerisch-assyr. Serie Lugal-e ud me-lam-bi nir-gál.—**J. Augapfel**, Babylonische Rechtsurkunden aus der Regierungszeit Artaxerxes I und Darius II. Wien, 1917, Wien Akad. 8vo. 8 M. 50.
- G. A. Barton**, Miscellaneous Babylonian Inscriptions. Part I, Sumerian Religious Texts. New Haven, 1918, Yale Univ. Press. 67 pp.; 41 pls.—**C. Bezold**, Historische Keilschrifttexte aus Assur. Zettelpuben des babylon-assyr. Wörterbuchs der Heidelberger Akademie d. Wissenschaften. Heidelberg, 1915. 8vo.
- E. Chiera**, Lists of Personal Names from the Temple School of Nippur. Publications of the Babylonian Section of the Museum of the University of Pennsylvania. XI, No. 3. Pp. 177–278; pls. 71–104. Philadelphia, 1919. University Museum.—**A. T. Clay**, The Empire of the Amorites. New Haven, 1919, Yale Univ. Press. 192 pp.—**G. Conteneau**, Umma sous la dynastie d'Ur. Paris, 1916, Geuthner. 114 pp. 8vo.
- R. P. Dougherty**, Goucher College Babylonian Collection, Baltimore, 1918, Goucher College. 8 pp.
- E. Ebeling**, Keilschrifttexte aus Assur religiösen Inhalts. Heft 1–3. Leipzig, 1915–1917. 4to.

- E. Forrer**, Zur Chronologie der neuassyrischen Zeit. Leipzig, 1915. 8vo. 3 M.—**W. Förtsch**, Altbabylonische Wirtschaftstexte aus der Zeit Lugalanda's und Urukagina's, kopiert und autographiert. 1. Hälfte. Leipzig, 1916. Folio. 13 M. 20.—**W. Förtsch**, Religionsgeschichtliche Untersuchungen zu den ältesten babylon. Inschriften. I. Hälfte. 1. Die Göttergruppen in den altbabylon. Königsinschriften. 2. Altbabylonische Opferlisten aus Tellch. Leipzig, 1914. 8vo. 15 M.
- R. Hartmann**, Palästina unter den Arabern, 632–1516. (Das Land der Bibel, Bd. I, Heft 4.) 8vo. 0.75 M.—**H. Holma**, Die assyrisch-babylonischen Personennamen der Form quttulu, mit bes. Berücks. d. Wörter f. Körperfehler; eine lexikal. Untersuchung. Helsingfors, 1914. 8vo. 4 M.—**H. Holma**, Études sur les vocabulaires sumériens-accadiens-hittites de Delitzsch. Helsinki, 1916. 73 pp. 8vo. 5 M.—**H. Holma**, Zehn altbabylonische Tontafeln in Helsingfors. Helsingfors, 1914. 4to. 6 M. 25.—**F. Hrozný**, Fr. Hethitische Keilschrifttexte aus Boghazköi; in Umschrift mit Uebersetzung und Kommentar (Boghazköi-Studien, Heft III, Lfg. 1). Leipzig, 1919. 8vo. 30 M.—**G. Hüsing**, Die einheimischen Quellen zur Geschichte Elams. Teil I: Altelamische Texte in Umschrift, mit Bemerkungen, einer Einleitung und einer Anhang. Leipzig, 1916. 8vo. 21 M. 60.—**M. J. Hussey**, Sumerian Tablets in the Harvard Semitic Museum. Part II: From the Time of the Dynasty of Ur. Leipzig, 1915. 76 pls. 4to. 24 M.
- P. Jensen**, Indische Zahlwörter in Keilschrift-hittitischen Texten. Berlin, 1919. 8vo. 1 M. 10.—**P. Jensen**, Texte zur assyrisch-babylonischen Religion. I: Kultische Texte. 1. Lfg. Berlin, 1915. 8vo. 7 M. 50.—**A. Jeremias**, Das Alte Testament im Lichte des Alten Orients. Handbuch zur biblisch-orientalistischen Altertumskunde. 3. völlig neubearb. Aufl. Leipzig, 1915. 8vo. 22 M. 50.
- Keilschrifttexte aus Boghazköi. Heft I–III, 1. Hälfte: Autographien von H. H. Figulla und E. F. Weidner.** Leipzig, 1916–1919. 4to. 37 M. 40.—**Clarence E. Keiser**, Letters and Contracts from Erech written in the Neo-Babylonian Period. New Haven, 1917, Yale Univ. Press. 45 pp.; 60 pls.—**J. A. Knudtzon**, Die El-Amarna-Tafeln. Leipzig, 1915. 8vo. 61 M. 20.—**R. Koldewey**, Das Ishtar-Tor in Babylon nach den Ausgrabungen. (Ausgrabungen der deutschen Orient-Gesellschaft in Babylon, II.) Leipzig, 1918, Deutschen Orient-Ges. 35 pls. (8 colored); 53 figs. Folio. 126 M.—**P. Koschaker**, Rechtsvergleichende Studien zur Gesetzgebung Hammurabis, Königs von Babylon. Leipzig, 1917. 8vo. 11 M. 70.—**E. Kraeling**, Aram and Israel; or the Aramaeans in Syria and Mesopotamia. London, 1919, Milford. 161 pp. 8vo.
- B. Landsberger**, Der kultische Kalender der Babylonier und Assyrer. I. Hälfte: Der altbabylonische Lokalkalender. Der Monat in kultischer Hinsicht. Leipzig, 1915. 8vo. 7 M. 20.—**S. Langdon**, Sumerian Liturgies and Psalms. Publications of the Babylonian Section of the Museum of the University of Pennsylvania. X, No. 4. Pp. 229–351; pls. 71–105. Philadelphia, 1919, University Museum.—**Le poème du paradis, du déluge et de la chute de l'homme**. Traduit par Chas. Virolleaud. Paris, 1919, E. Leroux. 268 pp.; 11 pls.—**Henry Frederick Lutz**, Selected Sumerian and Babylonian Texts. Publications of the Babylonian Section of the Museum of the University of Pennsylvania, Vol. I, Pt. 2. Pp. 15–133; pls. 48–141. Philadelphia, 1919, University Museum. 4to.
- B. Meissner**, Ein Entwurf zu einem neubabylonischen Gesetzbuch. Berlin, 1918. 8vo. 1 M. 50.—**B. Meissner**, Grundzüge der babylonisch-assyrischen Plastik. Leipzig, 1915. 8vo. 4 M. 20.—**B. Meissner**, Zur Geschichte des Chattireiches nach neuerschlossenen Urkunden d. chatti. Staatsarchivs. Breslau, 1917. 8vo. 1 M. 50.—**S. A. B. Mercer**, A Sumerio-Babylonian Sign-list. New York, 1918, Columbia Univ. Press. 11 pp.; 244 pls. 8vo. \$6.00 net.—**Ed. Meyer**, Reich und Kultur der Chetiter. (Alte Kulturen im Lichte neuer

- Forschung.) Bd. I. Berlin, 1915. 8vo. 11 M.—**B. Moritz**, Der Sinaikult in heidnischen Zeit. Berlin, 1916. 8vo. 5 M.
- G. Orfali**, De arca foederis, dissertatio archaeologica-historica Veteris Testamenti delineationibus ornata. Paris, 1918, Picard. vi, 115 pp. 8vo. 7 fr. 50.—**Orientalische Studien**. Fritz Hommel zum 60. Geburtstag am 31. VII. 1914 gewidmet von Freunden, Kollegen und Schülern. 2 Bde. Leipzig, 1917. 8vo. 50 M.
- H. Prinz**, Altorientalische Symbolik. Berlin, 1915. 8vo. 40 M.
- G. Ryckmans**, Les formes nominales en Babylonien. Étude de grammairie sémitique comparée. Paris, 1919, Imp. Nationale. 78 pp.
- O. Schroeder**, Altbabylonische Briefe. Leipzig, 1917. 4to. 18 M.—**O. Schroeder**, Das Pantheon der Stadt Uruk in der Seleukidenzeit auf Grund von Götterlisten und theophoren Personennamen in Kontrakten dieser Zeit. Berlin, 1916. 1 M. 50.—**O. Schroeder**, Kontrakte der Seleukidenzeit aus Warka. Leipzig, 1916. 8vo. 14 M. 40.—**W. Schwenzer**, Zum altbabylon. Wirtschaftsleben. Studien über Wirtschaftsbetrieb, Preise, Darlehen und Agrarverhältnisse. Leipzig, 1916. 8vo. 11 M.—**M. Streck**, Assurbanipal und die letzten assyr. Könige bis zum Untergange Niniveh's. 3 Tle. Leipzig, 1916. 57 M. 60.—**F. H. Swift**, Education in Ancient Israel from Earliest Times to 70 A. D. Chicago, 1919, Open Court. xii, 134 pp. 8vo.
- K. Tallqvist**, Assyrian Personal Names. Helsingfors, 1914. 4to. 50 M.—**F. Thureau-Dangin**, La chronologie des dynasties de Sumer et d'Accad. Paris, 1918, E. Leroux. 67 pp.—**P. Timme**, Tell el-Amarna von der deutschen Ausgrabung im Jahre 1911. Leipzig, 1917. Folio. 72 M.
- A. Ungnad**, Babylonische Briefe aus der Zeit der Hammurapi-Dynastie. Leipzig, 1914. 8vo. 19 M. 40.
- A. Walther**, Das altbabylonische Gerichtswesen. Leipzig, 1917. 8vo. 14 M. 40.—**O. Weber**, Die altorient. Siegelzylinder. 1 Hälfte. Leipzig, 1916. 8vo. 2 M. 40.—**E. F. Weidner**, Alter und Bedeutung der babylon. Astronomie und Astrallehre nebst Studien über Fixsternhimmel und Kalender. Leipzig, 1914. 8vo. 2 M. 40.—**E. F. Weidner**, Studien zur assyrischbabylonischen Chronologie und Geschichte auf Grund neuer Funde. Leipzig, 1917. 8vo. 12 M.—**T. Wiegand**, Alte Denkmäler aus Syrien, Palästina und Westarabien. 100 Tafeln mit beschreib. Text, deutsch und türkisch, veröffentl. auf Befehl von Ahmed Djemal Pascha. Berlin, 1919. 4to. 100 M.—**F. H. Weissbach**, Neue Beiträge zur keilinschriftl. Gewichtskunde. Leipzig, 1916. 8vo. 3 M.—**M. Witzel**, Keilinschriftliche Studien. Heft. 1. Leipzig, 1918, Harrassowitz. 8vo. 12 M.

CLASSICAL ARCHAEOLOGY

GREEK AND ROMAN

(Works treating of the monuments of the Greeks and Romans, but not exclusively of those of either.)

- J. Centerwall**, Grekisk och romersk mytologi. Stockholm, 1918, Wahlström och Widstrand. 245 pp. 8vo.
- C. Daremberg et E. Saglio**, Dictionnaire des antiquités grecques et romaines d'après les textes et les monuments. Tables. Paris, 1919, Hachette. 171 pp. 4 to 10 fr.
- W. Deonna**, Musée d'art et d'histoire de Genève; Complément au catalogue des sculptures grecques et romaines. Paris, 1919, Leroux. 46 pp. 8vo.
- E. G. Massi**, Descrizione illustrata dei musei dell'antica scultura greca e romana nel palazzo Vaticano. Novella edizione. Roma, 1919, Tip. Operaria Romana. 110 pp. 16mo.—**Musée du Louvre**, Département des antiquités grecques

et romaines. Catalogue sommaire des marbres antiques. Paris, 1919, Braun. 200 pp.; 64 pls. 16mo. 4 fr.

- H. B. Walters**, *Select Bronzes, Greek, Roman, Etruscan in the British Museum*. London, 1915, Milford. 87 pp.; 73 pls. 4to.

GREEK

(Including also titles of works relating to Pre-Hellenic inhabitants of Greece and to kindred peoples, and to monuments of Greek art wherever found.)

I. GENERAL AND MISCELLANEOUS

- T. Dempsey**, *the Delphic Oracle, its Early History, Influence and Fall*. New York, 1918, Longmans. xxiii, 199 pp. 8vo.
- D. Fimmen**, *Die kretisch-mykenische Kultur*. Leipzig, 1919, Teubner.
- T. Klee**, *Zur Geschichte der gymnischen Agone an griechischen Festen*. Leipzig, 1918, Teubner. viii, 136 pp. 9 fr.
- I. M. Linforth**, *Solon the Athenian*. Berkeley, 1919, University of California Press. 318 pp. 8vo. \$3.
- R. Munz**, *Quellenkritische Untersuchungen zu Strabo's Geographie*. Basel, 1918, Birkhaeuser. ii, 64 pp. 8vo. 4 fr.
- M. P. Nilsson**, *Olympen; en framställning av den klassiska mytologien*. Stockholm, 1919, Geber. xv, 389 pp. 8vo. 38 fr.
- F. Poulsen**, *Oraklet i Delfi; Historie, Religion, Kunst*. Copenhagen, 1919, Pio. 352 pp. 8vo. 48 fr.

II. GREEK SCULPTURE

- D. le Lasseur**, *Les déesses armées dans l'art classique grec et leurs origines orientales*. Paris, 1919, Hachette. 380 pp.; 129 figs. 8vo. 50 fr.
- A. von Salis**, *Die Kunst der Griechen*. Leipzig, 1919, Hirzel. x, 298, 38 pp.; 68 figs.—**F. Studniczka**, *Das Bildnis Menanders*. Leipzig, Teubner, 3 M.

III. GREEK VASES

- Mary A. B. Herford**, *A Handbook of Greek Vase Painting*. Manchester, 1919, University Press; New York, Longmans, Green & Co. xxii,

125 pp.; 11 pls.; 21 figs. 8vo. \$3.75 net.—**Joseph Clark Hoppin**, *A Handbook of Attic Red-Figured Vases, signed by or attributed to the various Masters of the sixth and fifth centuries B.C.* Cambridge, 1918, 1919, Harvard University Press. 2 vols. xxiv, 472; viii, 600 pp., numerous figs. 8vo. \$8.00 per volume.

IV. GREEK INSCRIPTIONS

- M. Holleaux**, *Étude sur la traduction en grec du titre consulaire*. Paris, 1918, de Boccard. x, 108 pp. 8vo.

ROMAN

(Including also titles of works relating to the monuments of the Etruscans and other peoples who inhabited Italy before or contemporaneously with the Romans, as well as to Roman monuments outside of Italy.)

I. GENERAL AND MISCELLANEOUS

- G. Brandes**, *Cajus Julius Caesar*. I. Copenhagen, 1918, Gyldendal. 520 pp. 8vo.
- F. Cumont**, *Die orientalischen Religionen im römischen Heidentum*. Uebersetz. v. G. Gehrich. 2. verb. u. verm. Aufl. Leipzig, 1915. 8vo. 7 M.
- F. Duhn**, *Pompeji. Eine hellenistische Stadt in Italien*. 3 Aufl. Leipzig, Teubner. 2 M. 15.
- G. W. Leffingwell**, *Social and Private Life at Rome in the Time of Plautus and Terence*. New York, 1918, Columbia University. 140 pp. 8vo.—**G. Lully**, *De senatorum romanorum patria, sive de romani cultus in provinciis incremento*. Rome, 1918, Loescher. xiv, 271 pp. 8vo. 9 fr.
- E. Pais**, *Storia critica di Roma durante i primi cinque secoli*. III. Rome, 1918, Loescher. xi, 423 pp. 8vo. 20 fr.—**F. Preisigke**, *Die Inschrift von Skaptoparene in ihrer Beziehung zu kais. Kanzlei in Rom*. Strassburg, 1917, 8vo. 5 M.
- H. Reiners**, *Eine Römersiedlung vor Verdun*. München, 1918, Bruckmann, 108 pp. 4to.

II. ROMAN ARCHITECTURE

- R. Lanciani**, Segni di terremoti negli edifizî di Roma antica. Roma, 1918, Loescher. 28 pp. 8vo.

III. ROMAN SCULPTURE

- É. Espérandieu**, Recueil général des bas-reliefs, statues et bustes de la

Gaule romaine. VII (Gaule germanique). I (Germanie supérieure). Paris, 1918, Leroux. vi, 399 pp. 4to. 27 fr. 50

IV. ROMAN INSCRIPTIONS

- J. E. Sandys**, Latin Epigraphy. Cambridge, 1919, University Press. 348 pp.; 50 figs. 8vo.

CHRISTIAN ART

I. GENERAL AND MISCELLANEOUS

Gli Arazzi resi dall' Austria vinta; Mantova, 1866-1919. Bergamo, 1919, Istituto italiano d'arti grafiche. 8 pp.; 12 pls. 16 mo.

E. Badel, Les Bombardements de Nancy, ville ouverte, 1914-1918. Églises et monuments meurtris; les victimes; les dégâts. Nancy, 1919, Crépin-Leblond. 102 pp.; plans. 8vo.—**F. Baehrendtz**, Kalmar domkyrka: beskrifning och historia. Kalmar, 1918, Appeltofft. 74 pp. 8vo.—**B. Bareilles**, Constantinople. Ses cités franques et levantines (Péra; Galata; Banlieue). Paris, 1918, éd. Bossard. 406 pp.; pl.; engr.; 32 figs. 8vo.—**Bau-und Kunstdenkmäler d. freien u. Hansestadt Lübeck**. 3. Bd. 1. Tl. J. Baltzer u. F. Bruns: Die Kirche zu Alt-Lübeck, Der Dom. Lübeck, 1919, Nöhring. 304 pp.; pl.; fig. 8vo. 11 M. 60.

—**Bau-und Kunstdenkmäler d. Prov. Westpreussen**. 4. Bd. Kreis Marienburg. 1. Die Städtel Neuteich u. Tiegenhof u. d. ländl. Ortschaften. (14 Heft). Bearb. B. Schmid. Danzig, 1919, Kafemann. viii, 388 pp.; chart, 503 figs. 4to. 16 M. 50.—**Beiträge zur fränk. Kunstgeschichte**. Hrsg. v. F. Haack. 8. Heft. M. Herold, Die St. Johanniskirche in Nürnberg. Erlangen, 1917, Blaessing. xi, 114 pp.; 10 pls. 8vo. 6 M.—**W. G. Benhaus**, Essex Borough Arms and the Traditional Arms of Essex, and the Arms of Chalonsford Diocese. Colchester, 1919, Benham. 78 pp. 8vo.—**H. Bergner**, Grundriss d. Kunstgeschichte. 3. verb. Aufl.

Leipzig, 1919, Kröner. vi, 306 pp.; 426 figs. 8vo. 7 M. 20.—

E. Bertrand, Notes archéologiques sur les Corcelles-les-Monts et le Mont-Afrique (Côte-d'Or). Dijon, 1919, A. Carteret. Pls.; 16 engrs. 8vo.—**A. G. Bianchi e G. Raffaello**, Disegni di artisti italiani. Milano, 1919, Alfieri e Lancroiz. 15 pp.; 48 pls. 4to.—**W. Bode**, Die Meister d. holländ. u. vläm. Malerschulen. Leipzig, 1917, Seemann. viii, 400 pp.; fig. 8vo. 100 M.—**A. de Boissieu**, La Tapisserie dans l'histoire. Préf. de Eugène Planet. Paris, 1919, l'Auteur, 15 bis, rue de Marignan. 109 pp. 18 mo.—**A. M. Brooks**, Great Artists and their Works, by Great Authors. Boston, 1919, Marshall Jones. xiv, 267 pp. 8vo. \$2.—**P. Buberl**, Die Denkmale d. polit. Bez. Salzburg. 3. Tl. Die Denkmale d. Gerichtsbez. Salzburg. Wien, 1916, Schroll. x, 508 pp., 6 pls.; 454 figs. 4to. 36 M. 80.—**F. Burger**, Weltanschauungsprobleme u. Lebenssysteme in d. Kunst d. Vergangenheit. München, 1919, Delphin. 91 pp.; 65 figs. 8vo. 13 M.

J. Casier et P. Bergmans, L'Art ancien dans les Flandres. Mémoires de l'Exposition rétrospective organisée à Gand en 1913. T. I.: Sculptures et mobilier. (L'ouvrage complet comprendra 3 vols.) Bruxelles et Paris, 1914, G. van Oest. 112 pp.; 105 pls. 4to.—**La Cattedrale di Genova** (1118-1918). Genova, 1918, Gioventù. 144 pp.; fig. 8vo.—**A. Clutton-Brock**, Essays on Art. London, 1919, Methuen. 155 pp. 8vo. 5s.—

- Corpus nummorum italicorum.** Primo tentativo di un catalogo generale delle monete medievali e moderne coniate in Italia o da italiani all'estero, a cura di S. M. il Re d'Italia. Vol. III: Veneto (Venezia, Part II: Da Leonardo Donà alla chiusura della Zecca). Milano, 1919, U. Hoepli. 186 pp.; 45 pls. Folio.—**J. E. E. Coulson**, Bologna, 1919, H. Frowde. 410 pp.; 100 figs. 8vo.—**R. A. Cram**, Christian Art. 3v. 1919, Badger. 4to. \$300.
- G. Dehio**, Geschichte d. deutschen Kunst. I. Bd. (2 Tle.) I, 1. Des Textes 1. Bd. (viii, 372 pp. 17 M.) I, 2. Der Abbildungen 1. Bd. (444 pp.; 484 figs. 24 M.) Berlin, 1919, Vereinigung wissenschaftl. Verleger. 8vo.—**G. Dehio** und **G. v. Bezold**, Die Denkmäler d. deutschen Bildhauerkunst. 15 Lfg. Berlin, 1919, Wasmuth. 1 p.; 20 pls. Folio. 30 M.
- G. W. Edwards**, Vanished Halls and Cathedrals of France. London, 1919, Skeffington. 32 pls. Folio.—**Elenco degli edifici monumentali e degli oggetti d'arte dell'Albania** (Ministero della pubblica istruzione). Roma, 1918, Calzone. 28 pp. 16mo.—**Elenco degli edifici monumentali e oggetti d'arte dell'Alto Adige con Ampezzo e Livinallongo** (Ministero della pubblica istruzione). Roma, 1919, Camera dei Deputati. 68 pp. 16mo.—**Elenco degli edifici monumentali e oggetti d'arte della Dalmazia** (Ministero della pubblica istruzione). Roma, 1919, Camera dei Deputati. 38 pp. 16mo.—**Elenco degli edifici monumentali e oggetti d'arte del Friuli orientale** (Ministero della pubblica istruzione). Roma, 1918, Camera dei Deputati. 42 pp. 16mo.—**M. Escriva de Romani**, Historia de la cerámica de Alcora; estudio critico de la fabrica; antiguos reglamentos. Madrid, 1919, Fortanet. 564 pp. 4to.
- G. Fiocco**, Catalogo delle opere d'arte tolte a Venezia nel 1808, 1816, 1838, restituite dopo la vittoria; con prefazione di G. Fogolari. Venezia, 1919, Ferrari. viii, 51 pp.; 16mo.—**L. Fumi**, Orvieto. Bergamo, 1919, Istituto italiano d'arti grafiche. 195 pp.; 3 pls. 8vo. L. 6.
- Galerie Ritter Gaston v. Mallmann**, Berlin. 1. Gemälde alter Meister aller Schulen. Katalog 1808. 63 pp.; 81 pls. 2. Handzeichnungen u. Kupferstiche. Katalog 1809. 53 pp.; 40 pls. Berlin, 1918, Lepke. 50, 40, and 10 M.—**Alte Gemälde u. Antiquitäten aus e. schles. Schloss u. a. Beiträge** (Umschl.: Besitz), darunter Porzellansammlung Dr. H. Rose-Wiesbaden. Katalog 1839. Berlin, 1919, Lepke. 47 pp.; 68 pls. 4to. 20 M.—**Johann Georg**, Herzog zu Sachsen, Kunst u. Kunstforschung im slav. Osten. Köln, 1919, Bachem. 72 pp. 8vo. 2 M.—**A. Graves**, Art Sales from Early in the Eighteenth Century to Early in the Twentieth Century. (Mostly old Masters and Early English Pictures.) Vol. I (A-G). Gravenhague, 1919, Nijhoff. 392 pp. 4to.—**Guide de Fontainebleau: palais et forêt**. Paris, 1919, Garnier frères. 100 pp.; engr. 8vo.—**C. Gurlitt**, Meissen (Stadt, Vorstädte, Afdorf, Freiheit u. Wasserburg). Dresden, 1917, Meinhold & Söhne. 485 pp., pl.; 715 figs. 8vo. 32 M.—**C. Gurlitt**, Sächsische Denkmalpflege. Erinnerungen u. Erfahrungen. Dresden, 1919, Huhle. 72 pp.; fig. 8vo. 2 M. 80.
- A. Haberlandt**, Volkskunst d. Balkanländer in ihren Grundlagen erläutert. Wien, 1919, Schroll. 78 pp.; 26 pls.; 40 figs. 4to. 75 M.—**Handbuch der Kunstwissenschaft**. Begr. v. F. Burger, fortg. v. A. E. Brinckmann. Neubabelsberg, 1914 ff., Athenaion. 8vo. 82. u. 89. Lfg.: E. v. d. Bercken u. A. L. Mayer, Malerei d. Renaissance in Italien. I. 28 pp.; 2 pls.; fig. 1918. II. 23 pp.; pl.; fig. 1919. 83-86 Lfg.: A. E. Brinckmann, Barockskulptur, in d. roman. u. german. Ländern. viii, 96 pp.; 4 pls.; fig. 1918. 79-81 usw. Lfg.: F. Burger, H. Schmitz u. I. Beth, Die deutsche Malerei vom ausgeh. Mittelalter bis z. Ende. d. Renaissance. 127 pp.; 6 pls.; fig. 1918; vii, 228 pp.; 19 pls.; 276 figs. 1919; 47 pp.; 3 pls.; fig. 1919. 78. 98. u. 99 Lfg.: M. Wackernagel, Die Baukunst d. 17. u. 18. Jh. in d. German. Ländern. 31 pp.; pl.; fig. 1918; 47

- pp.; 2 pls.; fig. 1919. O. Wulff, Die byzant. Kunst. 1916. 89., 94. u. 95. Lfg.: P. Frankl, Die Baukunst d. Mittelalters. viii, 72 pp.; pl.; fig. 1918. 90. u. 91. Lfg.: P. Schubring, Die italien. Plastik d. Quattrocento. 47 pp.; 3 pls.; fig. 1919. 92. u. 93. Lfg.: A. Weese, Skulptur u. Malerei in Frankreich vom 15. bis z. 17. Jh. 47 pp.; pl.; fig. 1919. A. Haupt, Baukunst d. Renaissance in Frankreich u. Deutschland. 47 pp.; pl.; fig. 1919. W. Pinder, Die deutsche Plastik vom ausgeh. Mittelalter bis z. Ende d. Renaissance. 23 pp.; pl. 1919. P. Schubring, Die italien. Plastik d. Quattrocento. 105 pp.; 2 pls.; fig. 1919. — **Harvard University**, William Hayes Fogg Art Museum, Collection of Mediaeval and Renaissance Paintings. Cambridge, 1919, Harvard Univ. Press. xxiv, 356 pp.; figs. 4to. \$7.50. — **H. Hassinger**, Kunsthistorischer Atlas d. k. k. Reichshaupt- u. Residenzstadt Wien. Wien, 1916, Schroll. vii, 304 pp.; 20 plans; 78 figs. 4to. 35 M. — **E. Hefel**, Die estensischen Sammlungen d. Hauses Österreich-Este. Zur Abwehr d. italien. Ansprüche. Wien, 1919, Amalthea-Verlag. 41 pp.; pl.; fig. 8vo. 4 M. 50. — **Heraldique des provinces belges**. Bruxelles, 1919, Vromant. 112 pp.; fig. in color. 8vo. — **R. Herzig**, Der Dom zu Hildesheim u. seine Kunstschatze. 2. verb. Aufl. Hildesheim, 1919, Lax. iv, 104 pp.; 66 figs. 8vo. 2 M. 20. — **L'Hôtel de ville de Rennes**. Histoire et description de l'hôtel de ville; ses salles, ses oeuvres d'art. Rennes, 1919, Oberthur. 53 pp.; engr. 8vo. — **G. Howe**, Leitfaden d. Kunstgeschichte. Für höhere Lehranstalten u. z. Selbstunterricht neu bearb. 13. Aufl. Essen, 1918, Baedeker. viii, 375 pp.; pl.; 361 figs. 8vo. 6 M.
- Italia nostra: collezione d'arte di storia e d'italianità**. Vol. I: La Venezia. Milano, 1919, Casa edit. Risorgimento. 80 pp.; engr. 8vo.
- G. Jourda de Vaux**, Les Châteaux historiques de la Haute-Loire (castels, maisons-fortes, manoirs). Le Puy-en-Velay, 1918, Peyriller, Rouchon & Gamon. 370 pp.; pl. 4to.
- H. Karlinger**, Bezirksamt Miltenberg. München, 1917, Oldenbourg. v, 358 pp.; 45 pls.; chart; 294 figs. 8vo. 14 M. — **Kunstdenkmäler v. Laon u. Umgebung**. Berlin, 1917, Wasmuth. 119 pp.; fig. 8vo. 3 M. 50. — **Kunstdenkmäler, zerstörte, an d. Westfront**. Weimar, 1917, Kiepenheuer. 34 pp.; fig. 8vo. 1 M. 50. — **Kunstdenkmäler von d. Engländern u. Franzosen zerstörte, an d. Westfront**. (In neugriech. Sprache) Übers. v. d. Zeitung Nea toy, Görlitz. Görlitz, 1917, Görlitzer Nachrichten. 32 pp.; fig. 8vo. 1 M.
- A. Lauterbach**, Warschau. (Berühmte Kunststätten). Leipzig, 1918, Seemann. viii, 199 pp.; 146 figs. 8vo. 6 M. — **B. Lázár**, Studien z. Kunstgeschichte. Wien, 1917, Schroll. vii, 71 pp.; 2 pls.; 66 figs. 8vo. 6 M. — **A. Lesourd**, Les Cachets armoriés du Lyonnais. Paris, 1919, H. Daragon. 16 pp.; 44 figs. 8vo. — **J. Linneborn**, Die kirchl. Baulast im ehemal. Fürstbist. Paderborn, rechtsgeschichtliche dargest. Paderborn, 1917, Schöningh. viii, 299 pp. 8vo. 12 M. — **Lois sur les monuments historiques et sur les sites artistiques**. Liste des monuments historiques et des sites artistiques classés situés dans le département de la Seine. (Paris et Banlieue). Paris, 1919, Chaix. 32 pp. 8vo. — **E. Lithgen**, Die Aufgaben d. Kunst u. d. kunstgeschichtl. Hochschul-Unterrichts. Reformvorschläge. Bonn, 1919, Schroeder. 56 pp. 8vo. 2 M. 50. — **R. Lynd**, Old and New Masters. London, 1919, F. Unwin. 250 pp. 8vo.
- F. Mader**, Stadt Aschaffenburg. München, 1918, Oldenbourg. v, 339 pp.; 43 pls.; 263 figs. 8vo. 14 M. — **M. Mader und G. Lill**, Stadt u. Bez.-Amt Schweinfurt. München, 1917, Oldenbourg. v, 316 pp.; 26 pls.; 277 figs.; plan. 8vo. 12 M. — **J. Magnin**, La Peinture et le Dessin au Musée de Besançon. Dijon, 1919, Darantière. 272 pp.; 81 figs. 18mo. — **F. Malaguzzi Valeri**, I migliori dipinti della r. pinacoteca di Bologna. Bologna, 1919, Zanichelli. 18 pp.; 46 pls.; 8vo. L. 7. 50. — **M. Marangoni**, Disegni di maestri umbro-senesi. Firenze,

- 1919, Olschki. 2 pp.; 24 pls. Folio.
 —A. Marguillier, La destruction des monuments sur le front occidental. Réponse aux plaidoyers allemands. Paris et Bruxelles, 1919, G. van Oest. vii, 82 pp.; 32 pls. 8vo.—**Martin**, Dreux. La Chapelle royale Saint-Louis, sépulture de la famille d'Orléans; son origine; son histoire; sa description, avec une mention sommaire des autres monuments de la ville. Chartres, 1918, Durand. 32 pp.; engr. 16mo.—**O. Matthiesen**, Italiens al-frescokunst. Kjobenhavn, 1918, Gyldendal. 340 pp.; 24 pls. 4to.—**C. Meillac**, Senlis. Visite de la ville; les environs, le passé; le crime allemand. Paris, 1919, Larousse. 48 pp.; 17 engrs.; plan. 16mo.—**I Monumenti vicentini**: guida illustrata e pianta itineraria per visitarli. Quinta edizione. Vicenza, 1919, Raschi. xxii, 29 pp. 16mo. L. 2.
- V. Nadal**, Blois: its Château and its Monuments. A Descriptive, Historical and Artistic Guide. Revised by J. A. Grenouillet; trans. by Mlle. A. Bussonnet and Miss M. Taylor. Clermont-Ferrand, 1918, Mont-Louis. 16mo.—**H. Neumann**, Weihnachten in altdeutscher Malerei. 16 Gemälde d. 15. u. 16 Jh. in farb. Wiedergabe m. e. Einführung. Berlin, 1918, Fricke-Verlag. 16 pp.; 16 pls. 8vo. 6 M.—**E. Nicolas**, Nancy. Promenades artistiques dans la ville. Pref. de M. Dessez. Nancy, 1919, Impr. des arts graphiques. 44 pp.; pls.; fig. 4to.—**E. Norgate**, Miniatura or The Art of Limning. Edited from the MS. in the Bodleian Library, and collated with other MSS. by Martin Hardie. Oxford, 1919, Clarendon Press. xxix, 111 pp. 8vo.
- R. Orueta**, La escultura funeraria en España: Provincias de Ciudad Real, Cuenca, Guadalajara. Madrid, 1919, Junta para ampliacion de estudios e investigaciones científicas; centro de estudios históricos. vii, 384 pp.; 111 figs. 8vo.
- L. Paniscig**, Die estensische Kunstsammlung. I. Bd. Skulpturen u. Plastiken d. Mittelalter u. d. Renaissance. Wien, 1919, Schroll. viii, 207 pp.; 37 pls.; 251 figs. 4to. 140 M.—**P. Parente**, Edifice monumentali ed oggetti d'arte a Galluccio e Mignano. Napoli, 1919, Detken & Rocholl. 28 pp. 8vo.—**P. Perali**, Orvieto: note storiche di topografia, note storiche di arte dalle origini al 1800. Orvieto, 1919, Marsili. xii, 307 pp.; figs. 16mo. L. 5.—**E. Polaczek**, Von d. Kunst im Elsass. Basel, 1918, Finckh. 28 pp.; 10 figs. 8vo. 1 M.—**Sammlung Pollack**, Würzburg. Gemälde alter vorwiegend holländ. Meister, figurale u. a. Perserteppiche, Möbel, usw. Frankfurt (Main), 1919, Rud. Bangel. 56 pp.; 8 pls. 8vo. 3 M.
- Reims: le Musée.** (Texte par Armand Dayot). Paris, 1919, L'Art et les Artistes. 44 pp.; engr. 4to.—**R. Ritter**, Le Château du Pau. Étude historique et archéologique. Paris, 1919, E. Champion. vii, 292 pp.; 54 engrs.; 6 plans. 8vo.—**V. Roth**, Siebenbürgische Altäre. Strassburg, 1916, Heitz. x, 242 pp.; 102 pls.; 8vo. 45 M.—**H. Rott**, Kunst u. Künstler am Baden-Durlacher Hof bis z. Gründung Karlsruhes. Karlsruhe, 1917, Müllersche Hofbuchh. v, 189 pp.; pl.; fig. 4to. 15 M.
- J. Allende Salazar y F. I. Sanchez Canton**, Retratos del Museo del Prado: identificación y rectificaciones. Madrid, 1919, J. Cosano. 303 pp.; 90 figs. 4to.—**J. v. Schlosser**, Materialien z. Quellenkunde d. Kunstgeschichte. 4. Heft. Die Kunsttheorie d. ersten Hälfte d. Cinquecento. 76 pp. 2 M. 1917. 5. Heft. Vasari. 77 pp. 4 M. 20. 1918. 6. Heft. Die Kunstliteratur d. Manierismus. 137 pp. 7 M. 1919. Wien, Holder. 8vo.—**F. T. Schulz**, Nürnbergs Bürgerhäuser u. ihre Ausstattung. Wien, 1918, Gerlach & Wiedling. 49 pp.; photos.; drawings. 8vo. 5 M.—**R. Sievers**, Braunschweig. Bilder aus e. alten Stadt. (3 Aufl.) Wolfenbüttel, 1919, Zwissler. 1 p.; 10 pls. 4to. 4 M. 50.—**A. Speltz**, Styles of ornament from prehistoric times to the middle of the XIXth century, a series of 3,500 examples arranged in historical order with descriptive text. Tr. from the 2nd. German ed., rev. and ed. by R. P. Spiers. London. 1919, Helburn. 650 pp. 8vo. \$5.—**G. Streng**, Das Rosettenmotiv

- in d. Kunst-u. Kulturgeschichte. München, 1918, Müller & Fröhlich. 80 pp.; 33 figs. 8vo. 5 M.—**E. A. Stückelberg**, Cicerone im Tessin. Ein Führer f. Geschichts-, Kunst-u. Altertumsfreund. Basel, 1918, Frobenius. 75 pp.; 76 figs.; 1 plan. 8vo. 8 M.—**Studien u. Skizzen z. Gemäldekunde**. Hrsg. T. v. Frimmel. 4. Bd. 5. u. 6. Lfg. Wien, 1919, Gerold. 15 pp.; 8 pls.; 1 fig. 8vo. 4 M.
- H. Tietze**, Wien. (Berühmte Kunststätten) Leipzig, 1918, Seemann. 8vo. 6 M.—**E. Tietze-Conrat**, Die Bronzen d. fürstlich Liechtensteinschen Kunstkammer. Wien, 1918; Schroll. 96 pp.; 75 figs. 4to. 10 M.
- W. R. Valentiner**, Zeiten d. Kunst u. d. Religion. Berlin, 1919, Grote. xii, 364 pp.; 44 figs. 8vo. 15 M.—**G. Voss**, Grossh. Sachsen-Weimar-Eisenach. Amtsgerichtsbez. Eisenach. III. Die Wartburg. Jena, 1917, Fischer. xv, 399 pp.; 78 pls.; 302 figs. 8vo. 20 M.
- Zeichnungen aus d. Besitz d. National-galerie**. Hrsg. v. L. Justi. 9. u. 10. Lfg. 20 pp.; 20 pls. 50 M. Text iv, 31 pp. 40 M. Berlin, 1919, Bard. Folio.
- ## II. EARLY CHRISTIAN, BYZANTINE, AND MEDIAEVAL
- H. Achelis**, Der Entwicklungsgang d. altchristl. Kunst. Leipzig, 1919, Quelle & Meyer. 47 pp.; 5 pls. 8vo. 2 M. 20.—**A. Adam**, L'Église et la Paroisse Saint-Sauveur, anciennement Notre-Dame de Froide-Rue. Caen, 1919, L. Jouan. 36 pp.; engr. 8vo.—**Amiens avant et pendant la guerre**. Un guide, un panorama, une histoire. Clermont-Ferrand, 1919, Michelin & Cie. 56 pp.; fig. 8vo.—**Amiens**, Before and during the War. London, 1919, Michelin. 56 pp.; figs. 8vo. 1s. 6d.
- P. Bacci**, Per la istoria del battistero di Pisa. Pisa, 1919, Mariotti. 28 pp. 4to.—**E. Badel**, Le Voeu de Saint Louis à l'église Saint-Nicolas-du-Port; la Nef d'argent de 1254; le Vaisseau du cardinal de Lorraine; les Armoiries de la cité lorraine (1546). Nancy, 1918, Rigot. iii, 64 pp.; pls.; fig. 8vo.—**P. Batiffol**, Études de liturgie et d'archéologie chrétienne. Paris, 1919, A. Picard. vi, 330 pp. 16 mo. 4 fr.—**Abbé Bernois**, Histoire de l'abbaye royale de Sainte-Enverte d'Orléans. Orléans, 1918, l'Auteur, 4, Rue Sainte-Enverte. xii, 380 pp.; engr. 8vo.—**O. Beuve**, Notre-Dame de l'Epine. Nouveau guide du touriste et de l'archéologue. Châlons-sur-Marne, 1919, Journal de la Marne. 8vo.—**E. M. Blaser**, Gotische Bildwerke der Kathedrale von Lausanne: ein Beitrag zur Kenntnis französischer Provinzialkunst des XIII Jahrhunderts. Basel, 1918, Schwabe. xi, 115 pp.; 9 pls. 8vo.
- C. Challine**, Recherches sur Chartres. Transcrits et annotés par un arrière-neveu de l'auteur. Chartres, 1918, Soc. archéologique d'Eure-et-Loir. xiv, 507 pp.; engrs. 8vo.—**G. Clanché**, Guide-express à la cathédrale de Toul. Nancy, 1918, Rigot. viii, 119 pp.; pls.; fig.; plan. 8vo.—**H. Cornell**, Norrlands kyrkliga konst under medeltiden. Uppsala, 1918, Almqvist & Wiksell. xii, 281 pp.; 17 pls. 8vo.—**L. Coutil**, La Chapelle Saint-Eloi de Nassandres (Eure). Étude sur le culte des pierres, des sources et des arbres dans les départements de l'Eure, la Seine-Inférieure et la Normandie. Evreux, 1918, Hérissay. 115 pp. 8vo.—**V. Curt**, Die mittelalterl. Malerei Niedersachsens I (v. d. Anfängen bis um 1450). Strassburg, 1919, Heitz. xi, 314 pp.; 60 pls. 8vo. 60 M.
- Alte Denkmäler aus Syrien, Palästina u. Westarabien**. (in deutscher u. türk. Sprache). Berlin, 1918, Reimer. ix, 100 pp.; 100 pls. 4to. 100 M.—**E. Diez**, Churasanische Baudenkmäler. Berlin, 1918, Reimer. xi, 116 pp.; 41 pls.; 40 figs. 4to. 60 M.—**M. Dvořák**, Idealismus u. Naturalismus in d. got. Skulptur u. Malerei. München, 1918, Oldenbourg. 128 pp. 8vo. 6 M.
- C. Enlart**, Manuel d'archéologie française depuis les temps mérovingiens jusqu' à la renaissance.

- 2e édit. I. Architecture religieuse. Première partie. Paris, 1919, A. Picard. cviii, 458 pp.; 225 figs. 8vo. 18 fr.—**Etoffes et tapisseries coptes**; influence antique, byzantine, sassanide. Paris, 1919, H. Ernst. 48 pls. 4to.
- G. Ferrero**, La Grande mutilée de Reims. Conférence donnée à Toulouse, sous les auspices du Comité de la Fédération littéraire, dramatique et musicale toulousaine. Préf. de L. Caddau. Toulouse, 1919, Imp. du Sud-Ouest. 52 pp. 8vo.—**O. Fiebiger und L. Schmidt**, Inschriftensammlung z. Geschichte d. Ostgermanen. Wien, 1917, A. Hölder. xviii, 174 pp.; fig. 4to. 16 M.—**B. D. Filow**, L'ancien art bulgare. Berne, 1919, P. Haupt. viii, 88 pp.; 58 pls.; 72 figs. 4to.—**E. Fischer**, Västergötlands romanska stenkonst. Arkitektur-och skulptur-studier inom kinnekulletraktens kulturområde. Göteborg, 1918, Konstlöjdmuseet. ix, 112 pp.; pl. 4to.—**A. Foratti**, L'arte italiana dalle origini al rinascimento. Milano, 1919, Varesina. 115 pp.; figs. 16mo. L. 2.50.—**Fundberichte** aus Schwaben, umfassend d. vorgeschichtl., röm. u. merowing. Altertümer. Stuttgart, 1917, Schweizerbart. iv, 151 pp.; 3 pls.; fig. 8vo. 3 M.
- J. Gass**, La Cathédrale de Strasbourg. Guide illustré. Strasbourg, 1918, L. Beust. 48 pp.; engr. 16mo.—**A. Goldschmidt**, Die Elfenbeinsulpturen aus d. Zeit d. karoling. u. sächs. Kaiser 8.–11. Jh.; bearb. unt. mitw. v. P. G. Hübner u. O. Homburger. 2. Bd. Berlin, 1918, Cassirer. v, 77 pp.; 70 pls.; 42 figs. 4to. 235 M.
- V. C. Habicht and V. Curt**, Die mittelalterl. Plastik Hildesheims. Strassburg, 1917, Heitz. xiii, 264 pp.; 40 pls. 8vo. 20 M.—**W. Hoppenstedt**, Ani u. d. christl. Baukunst Armeniens. Berlin, 1918, Der neue Orient. 8 pp. 8vo. 25 M.—**E. Houvet**, Cathédrale de Chartres: Portail occidental ou royal (XIIe siècle). Préf. par Émile Mâle. Chartres, 1919, Lesigne. 4 pp.; 94 pls. 4to.
- Jouen**, La Notre-Dame-de-Pitié de la cathédrale de Rouen et son donateur. Rouen, 1918, Lainé. 140 pp.; fig. 8vo.
- G. van Kalcken**, Peintures ecclésiastiques du Moyen âge: Église Saint-Pancrace à Enkhuysen; église Saint-Jean; salle Marnix, Utrecht; église de Leuv; église Saint-Laurent, Alkmaar. 's Gravenhague, 1919, M. Nijhoff; Haarlem, Tjeenk, Willink & Zoon. 26 pls. Folio.—**J. v. Karabacek**, Abendländische Künstler zu Konstantinopel im XV. u. XVI. Jh. I Italien. Künstler am Hofe Muhammeds II. d. Eroberers 1451–1481. Wien, 1918, Hölder. 9 pls.; 55 figs. 4to. 22 M.—**H. Koch**, Die altchristl. Bilderfrage nach d. literar. Quellen. Göttingen, 1917, Vandenhoeck & Ruprecht. iv, 108 pp. 8vo. 4 M. 80.
- Landrieux**, La Cathédrale de Reims: un crime allemand. Paris, 1919, H. Laurens. 237 pp.; 96 pls.; plan. 8vo.—**A. Levé**, La Tapisserie de la reine Mathilde, dite la tapisserie de Bayeux. Paris, 1919, H. Laurens. 212 pp.; 9 pls. 8vo.—**A. Lindblom**, La Peinture gothique en Suède et en Norvège. Étude sur les relations entre l'Europe occidentale et les pays scandinaves. Stockholm, 1919, Wahlström & Widstrand; London, B. Quaritch. ii, 252 pp.; 51 pls.; fig. Folio.—**E. Lüthgen**, Die nieder-rhein. Plastik v. d. Gotik bis z. Renaissance. Strassburg, 1917, Heitz. xii, 555 pp.; 75 pls. 8vo. 45 M.
- G. Morazzoni**, Milano attraverso l'immagine. Vol. I: Il Duomo. Saggio iconografico. Milano, 1919, Alfieri & Lacroix. xvi, 63 pp.; 68 pls. 4to. L. 35.—**H. Much**, Norddeutsche Backsteingotik. Ein Heimatbuch. 3., völlig umgearb. Aufl. Braunschweig, 1919, Westermann. 49 pp.; 87 pls. 8vo. 18 M.—**A. Muñoz**, La basilica di santa Sabina in Roma: descrizione storico-artistica dopo i recenti restauri. Milano, 1919, Alfieri e Lacroix. 46 pp.; portrait; 38 pls. 16mo.
- F. Poser**, Die Westtürme d. Domes zu Merseburg. Stilkrit. Untersuchung d. Feststellung ihrer Entstehungszeit u. architekton. Beeinflussung. Beitrag z. thüringisch-sächs. Kunstgeschichte. Merse-

- burg, 1919, Pouch. vii, 116 pp.; 49 figs. 8vo. 8 M. 80.—**G. Prausnitz**, Die Ereignisse am See Genezareth in d. Miniaturen v. Handschriften u. auf älteren Bildwerken. Strassburg, 1917, Heitz. vii, 86 pp.; 17 pls.; 37 figs. 8vo. 8 M.—**J. Puig y Cadafalch, de Falgnera, J. Goday y Casals**, L'arquitectura romànica a Catalunya. Vol. III: els segles XII y XIII. Barcelona, 1918, Henrich. 974 pp.; fig. 4to.
- F. Randa**, Die Baukunst d. Benediktiner u. Zisterzienser im Kgr. Sachsen u. d. Nonnenkloster z. Hl. Kreuz bei Meissen. Meissen, 1917, Mosche. xvi, 96 pp.; 36 pls.; fig. 8vo. 4 M. 50.—**Les Richesses d'art de la France. Architecture. I: La France du Moyen Age.**—Artistic Treasures of France. Architecture. I: Medieval France (32 pls., avec notices en regard, en français et en anglais, et 7 pp. d'introd. non chiffrées). Paris, 1919, D. A. Longuet. 16mo.—**W. B. Richmond**, Assisi: Impressions of Half a Century. London, 1919, Macmillan. 218 pp.; pls. Folio. 42s.—**J. Roosval**, Die Steinmeister Gottlands: eine Geschichte der führenden Taufsteinwerkstätte des schwedischen Mittelalters, ihrer Voraussetzungen, und Begleit-Erscheinungen. Stockholm, 1918, Vitterhets, historie och antikvitetsakademien. viii, 242 pp.; 270 figs.; 66 pls. 4 to.
- A. Sambon**, Recueil des monnaies médiévales du sud de l'Italie avant la domination des Normands. Paris, 1919, Bibl. du Musée, 107, avenue des Champs-Élysées. xvii, 97 pp.; fig. 4to.—**G. Scalia**, L'utilità dello studio dei trecentisti. Catania, 1919, V. Giannotta. 37 pp. 8 vo.—**K. Scheffler**, Der Geist d. Gotik. Leipzig, 1919, Insel-Verlag. 117 pp.; 103 figs. 8 vo. 12 M. 50.—**J. Schinnerer**, Die got. Plastik in Regensburg. Strassburg, 1918, Heitz. 132 pp.; 8 pls. 8 vo. 10 M.—**J. Schinnerer**, Die Grundzüge d. got. Baukunst. Leipzig, 1918, Voigtländer. 39 pp.; 67 figs. 8vo. 1 M. 50.—**K. Schmaltz**, Mater ecclesiarum, Die Grabeskirche in Jerusalem. Strassburg, 1918, Heitz. xi, 510 pp.; 14 pls. 8vo. 45 M.—**A. Schmarsow**, Das Franciscusfenster in Königsfelden u. d. Freskenzyklus in Assisi. Leipzig, 1919, Teubner. 38 pp. 8vo. 1 M. 60.—**A. Schmarsow**, Kompositionsgesetze frühgot. Glasgemälde. Leipzig, 1919, Teubner. 8vo. 4 M. 80.—**V. Schultze**, Grundriss d. Christl. Archäologie. München, 1919, Becksche. viii, 159 pp.; 1 pl. 8vo. 5 M.—**F. Schwäbl**, Die vorkaroling. Basilika St. Emmeram in Regensburg u. ihre baul. Änderungen im ersten Halbjahrtausend ihres Bestandes, 740–1200. Regensburg, 1919, Habel. v, 64 pp.; 4 pls.; 42 figs. 4to. 16 M. 50.—**H. F. Secker**, Die Kunstsammlungen im Franziskanerkloster zu Danzig. Wegweiser. Berlin, 1917, Bard. 53 pp.; 50 pls. 8vo. 2 M.—**A. Springer**, Handbuch d. Kunstgeschichte. II. Frühchristliche Kunst u. Mittelalter. 10., umgearb. Aufl. Bearb. v. J. Neuwirth. Leipzig, 1919, Kröner. x, 525 pp.; 14 pls.; 732 figs. 8vo. 20 M.—**Strasbourg** et sa cathédrale. Nancy, Paris, Strasbourg, 1919, Berger-Levrault, 49 pp.; 21 engrs. 16mo.—**L. Straus**, Zur Entwicklung d. zeichner. Stils in d. Cölner Goldschmiedekunst d. 12 Jh. Strassburg, 1917, Heitz. 48 pp.; 10 pls. 8vo. 4 M.—**J. Strzygowski**, Die Baukunst der Armenier und Europa. Ergebnisse einer vom kunsthistor. Institute der Universität Wien 1913 durchgeführten Forschungsreise; unter Mitarbeit von Th. Thoramianian, H. Glück und L. Lissitzian. 2 Bde. xii, 888 pp.; 828 figs. Wien, 1919. 4to. 220 M.—**K. M. Swoboda**, Römische u. roman. Paläste. Eine architekturgeschichtliche Untersuchung. Wien, 1919, Schroll. 279 pp.; 16 pls.; 100 figs. 8vo. 28 M.
- J. Torbado y Florez**, La catedral de Léon. Barcelona, 1919, Thomas. xxix, 48 pp.; 48 figs. 8vo.
- W. Volbach**, Der hlg. Georg. Bildl. Darstellung in Süddeutschland m. Berücks. d. norddeutschen Typen bis z. Renaissance. Strassburg, 1917, Heitz. ix, 145 pp.; 8 pls. 8vo. 8 M.

K. Woermann, Geschichte d. Kunst Aller Zeiten u. Völker. 2., Neubearb. u. verm. Aufl. (In 6 Bdn.) 4. Bd. Die Kunst d. Älteren Neuzeit v. 1400–1500. 1919. xvi, 636 pp.; 65 pls.; 337 figs. 8vo. 28 M. 3 Bd. Die Kunst d. Christl. Frühzeit u. d. Mittelalters. 1918. xviii, 574 pp.; 66 pls.; 343 figs. 8vo. 18 M. Leipzig, Bibliograph Institut.—**W. Worringer**, Form Problems of the Gothic. New York, 1919, G. E. Stechert. 146 pp.; 27 pls. 8vo. \$2.50.—**E. Wrangel** and **O. Rydbeck**, Medeltidsmålningarna i Dadesjö och öfver gangen fran romansk stil till gotik. Stockholm, 1919, Wahlström & Widstrandt. iv, 45 pp.; 4 pls. 4to.

III. RENAISSANCE

L. Albizzi, La testa del Battista, dipinto originale di Leonardo da Vinci. Fiesole, 1919, Rigacci. 31 pp. 4to.

F. e G. Bagatti Valsecchi di Belvignate, La casa artistica italiana (La casa Bagatti Valsecchi in Milano. Architettura e interni nello stile del Quattrocento e del Cinquecento; arredi del secolo XV al XVI). Pref. e note di P. Toesca. Milano, 1919, Hoepli. 32 pp.; 159 pls. Folio.—**L. Beltrami**, Documenti e memorie riguardanti la vita e le opere di Leonardo da Vinci in ordine cronologico. Milano, 1919, Allegrretti. xii, 221 pp.; portrait. 8vo. L. 6.50.—**L. Beltrami**, Documenti inediti per la storia della 'Vergine delle roccie' di Leonardo da Vinci. Milano, 1918, Allegrretti. 30 pp.; 2 pls. 8vo.—**L. Beltrami**, La "destra mano" di Leonardo da Vinci e le lacune nella edizione del Codice Atlantico. Milano, 1919, Alfieri & Lacroix. Fig. 4to.—**L. Beltrami**, Le 'molteplici e faticose ricerche' del direttore della *Raccolta vinciana*, dott. E. Verga. Parte I (periodo 1905–1913). Milano, 1919, Allegrretti. 27 pp. 8vo.—**L. Beltrami**, Novissima lezione vinciana, in due parti, con intermezzo. Milano, 1919, Allegrretti. xv, 91 pp. 8vo.—**C. Bonetti**, Intarsiatori cremonesi:

Paolo del Sacha (1468–1537). Cremona, 1919, Centrale. 123 pp.; figs. 8vo.—**C. P. Burgerjo**, De incunabelen en de Nederlandsche Uitgaven tot 1540 in de Bibliotheek der Universiteit van Amsterdam. 's Gravenhage, 1919, M. Nijhoff. 44 and 72 pp.; fasc. 8vo.—**A. Byne** and **M. Stepley**, Spanish Architecture in the Sixteenth Century. London, 1919, Putnam. 8vo.

Carbonelli e Ravasini, Comenti sopra alcune miniature e pitture italiane a soggetto medico: specialmente dell'arte d'illustrare il Tacuinum sanitatis nei sec. XIV e XV, colle referenze ed alcune pitture murali. Roma, 1918, De Marinie. 80 pp.; 52 pls. 8vo.

J. Depowski, Die Sigismundskapelle (Jagellonische Kapelle) in Krakaw. Freiburg (Schweiz), 1916, Hodel. 127 pp. 8vo.—**J. Destrée**, Hugo van der Goes et son oeuvre. Bruxelles et Paris, 1914, G. van Oest. 240 pp.; 85 pls. 4to.—**W. Dexel**, Untersuchungen üb. d. französ. illuminierten Handschriften d. Jenaer Universitätsbibliothek vom Ende d. 14. bis z. Mitte d. 15. Jh. Strassburg, 1917, Heitz. vi, 50 pp.; 10 pls. 8vo. 4 M.—**Albr. Dürer**, Epitome in divae parthenices Mariae historiam ab Alberto Dürero Norico per figuras digestam cum versibus annexis Chelidonii. Berlin, 1919, Amsler & Ruthardt. 20 pp. 4to. 45 M.

O. Fischer, Albrecht Dürers Leben u. Werke. Dachau, 1919, Gelber. xxiv pp.; 96 pls. 8vo. 5 M. 50.

—**Les Fresques de Fra Angelico** à Saint-Marc de Florence, reproduites en couleurs par André Marty et commentées par André Pératé. Fasc. I à III. (L'ouvrage comprendra 4 fascs.) Paris, 1919, Émile-Paul frères. 32 pls. Folio.—**M. J. Friedländer**, Von Eyck bis Bruegel. Berlin, 1916, Bard. viii, 191 pp.; 32 figs. 8vo. 13 M.

A. Garneri, Gli ordini di architettura civile di Giacomo Barozzi da Vignola raffrontati con Vitruvio, Palladio, Serlio e Scamozzi. Nona edizione italiana e francese. Milano, 1919, Mondaini. 114 pp.; 17 pls.; figs. 16mo. L. 3.—**M. Geisberg**, Das Kupferstich-Kar-

- tenspiel d. k. u. k. Hofbibliothek zu Wien aus d. Mitte d. XV. Jh. Strassburg, 1918, Heitz. 51 pp.; 57 pls. 8vo. 16 M.—**Grünwalds** Isenheimer Altar in 49 Aufnahmen. Mit e. Einführung v. O. Hagen. München, 1919, Piper. Textheft 55 pp. 4to. 49 pls. Folio. 300 M.—Luxus-Ausg. 800 M.—**W. Gyssling**, Anton Möller u. seine Schule. Ein Beitrag z. Geschichte d. Nieder-deutschen Renaissancemalerei. Strassburg, 1917, Heitz. ix, 168 pp.; 29 pls. 8vo. 14 M.
- F. Haack**, Funde u. Vermutungen zu Dürer u. z. Plastik seiner Zeit. Erlangen, 1916, Blaessing. v, 105 pp.; 25 pls. 8vo. 6 M.—**O. Hagen**, Matthias Grünwald. München, 1919, Piper. 227 pp.; 111 figs. 8vo. 45 M.—**W. Hausenstein**, Der Isenheimer Altar d. Matthias Grünwald. München, 1919, Hirth. 111 pp. 8vo. 50 M.—**C. G. Heise**, Norddeutsche Malerei. Studien zu ihrer Entwicklungs-Geschichte im 15. Jh. v. Köln bis Hamburg. Leipzig, 1918, Wolff. v, 192 pp.; 100 pls. 8vo. 32 M.—**B. Heymans**, De Renaissance in Italien gedurende de XVe eeuw, benevens levensschets van Da Vinci. Zutphen, 1919, Thiena. xvi, 184 pp.; fig. 8vo.—**C. J. Holmes**, Leonardo da Vinci. London, 1919, Humphrey Milford, for the British Academy; Oxford University Press. 28 pp. 8vo.
- Inventaires du palais de Monaco** (1604–1731) publiés avec une introduction sur l'histoire du palais depuis la fin du XVe siècle, les collections qui y furent conservées et les artistes qui y travaillèrent, par L. H. Labande. Monaco, 1919, Imp. de Monaco. Paris, A. Picard. ccxxxii, 376 pp. 8vo.
- R. Kahn**, Die Graphik d. Lucas van Leyden. Strassburg, 1918, Heitz. xvii, 146 pp.; 18 pls. 8vo. 20 M.—**H. Kehrler**, Matthias Grünwald. Das Wunder d. Isenheimer Altars. München, 1919, Schmidt. 64 pp.; 52 figs. 8vo. 2 M. 80.—**H. Kehrler**, Peter Paul Rubens. Briefen d. Künstlers u. seiner Schrift: "Über d. Nachahmung antiker Statuen." München, 1919, Schmidt. 99 pp.; 80 figs. 8vo. 3 M. 60.—**Künstler-Inventare**. Urkunden zur Geschichte der holländischen Kunst des XVIten, XVIIten und XVIIIten Jahrhunderts, von A. Bredius, Unter Mitwirkung von O. Hirschmann. 5. Teil. Haag, 1918, M. Nijhoff. xii, 368 pp.; 7 pls.; 86 facsimis. 8vo.
- Leonardo** commemorato in Campidoglio, 11 maggio 1919. Roma, 1919, Bardi. 49 pp. 8vo.—**A. Luzio**, Gli arazzi dei Gonzaga restituiti dall' Austria. Bergamo, 1919, Istituto ital. d'arti grafiche. 40 pp.; 20 pls. 4to. L. 60.
- A. Marquand**, Robbia Heraldry. Princeton, 1919, Princeton University Press; London, Humphrey Milford, Oxford University Press. xviii, 300 pp.; 277 figs. 4to.—**E. Martinori**, Annali della zecca di Roma (1521–1523). Roma, 1918, Tip. del Senato. 55 pp.; fig. 8vo.—**A. L. Mayer**, Matthias Grünwald. München, 1919, Delphin. 87 pp.; 68 figs. 8vo. 13 M.—**P. de Mont**, La Peinture ancienne au Musée royal des Beaux-Arts d'Anvers. Bruxelles et Paris, 1914, G. van Oest. 60 pp.; 99 pls. 4to.
- Nel IV centenario di Leonardo da Vinci**. Bergamo, 1919, Istituto ital. d'arti grafiche. xx, 442 pp.; 4 pls.; fig. 8vo.—**C. Neumann**, Aus d. Werkstatt Rembrandts. Heidelberg, 1918, C. W. Verl. viii, 166 pp.; pl.; fig. 8vo. 24 M. 50.—**Note Book and Account Book of Nicolas Stone**, Master and Mason to James I and Charles I, transcribed and annotated, with introduction by W. L. Spiers. London, 1919, Walpole Society. 226 pp. Folio.
- R. Oldenbourg**, Die fläm. Malerei d. 17. Jh. (Handbücher d. kgl. Museen zu Berlin. 17. Bd.) Berlin, 1918, Reimer. 211 pp.; 93 figs. 8vo. 5 M. 50.
- A. Pescatore**, Der Meister der bemalten Kreuzigungsreliefs. Ein Beitrag z. Geschichte d. nieder-deutschen Plastik im 15. Jh. Strassburg, 1918, Heitz. vii, 135 pp.; 7 pls. 8vo. 10 M.—**E. Petraccone**, Luca Giordano: opera postuma, aggiunti i *Colloqui*, a cura di B. Croce. Napoli, 1919, Ricciardi. xviii, 226 pp.; 2 por-

- traits; 5 pls. 16mo. L. 7.—**Polifilo**, Leonardo e i disfattisti suoi, con un' appendice, Leonardo architetto, de L. Beltrami. Milano, 1919, Allegretti. xv, 215 pp.; portrait; 54 pls.; figs. 8vo. L. 10.—**Polifilo**, 'Madonna Cecilia' di Leonardo da Vinci. Milano, 1919, Allegretti. 37 pp. 8vo.
- H. Schuritz**, Die Perspektive in d. Kunst Albrecht Dürers. Ein Beitrag z. Geschichte d. Perspektive. Frankfurt (Main), 1919, Keller. 50 pp.; 22 pls.; 36 figs. 4to. 25 M.—**M. Sonnen**, Die Weserrenaissance. Die Bauentwicklung um d. Wende d. 16. u. 17. Jh. an d. oberen u. mittleren Weser u. in d. angrenz. Landesteilen. Münster, 1918, Aschen-dorffsche Verlh. lxiv, 203 pp.; 250 figs. 4to. 38 M.—**A. Springer**, Handbuch d. Kunstgeschichte. III. Die Kunst d. Renaissance in Italien. Leipzig, 1918, Kröner. xv, 334 pp.; 24 pls.; 359 figs. 8vo. 15 M.—
- J. Springer**, Das Leiden Christi, m. d. gestochenen Passion d. Albrecht Dürer. München, 1919, Holbein. 44 pp.; fig. 8vo. 8 M.—**E. K. Stahl**, Die Legende vom hl. Riesen Christophorus in d. Graphik d. 15. u. 16. Jh. Ein entwicklungsgeschichtl. Versuch. München, 1920, Lentner. xii, 225 pp.; 63 pls. 4to. 150 M.
- P. Valéry**, Introduction à la méthode de Léonard de Vinci. Paris, 1919, Nouvelle Revue française. 100 pp. 16mo.—**L. Venturi**, La critica e l'arte di Leonardo da Vinci. Bologna, 1919, Zanichelli. 206 pp.; 22 pls. 8vo. L. 18.
- E. Waldmann**, Albrecht Dürer. Leipzig, 1919, Insel-Verlag. 94 pp.; 80 pls. 8vo. 8 M.—**H. Wölfflin**, Die Kunst Albrecht Dürers. 3., durchgearb. Aufl. München, 1919, Bruckmann. x, 340 pp.; pl.; 143 figs. 8vo. 24 M.—**R. Wustmann**, Albrecht Dürer. 2. Aufl. Leipzig, 1919, Teubner. 113 pp.; pl.; 31 figs. 8vo. 2 M. 66.

1920

January-June

ARCHAEOLOGICAL NEWS¹

NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

WILLIAM N. BATES, *Editor*
220, St. Mark's Square, Philadelphia, Pa.

EGYPT

THE EXPEDITION OF THE METROPOLITAN MUSEUM.—In the *Fiftieth Annual Report* of the Metropolitan Museum of Art it is stated that the Expedition of the Museum in Egypt during the winter of 1919-1920 has been clearing the surface drift down to bed rock in the bays in the cliffs to the south of Deir el Bahri with the hope of finding important burials. For the Tytus memorial publications the scenes on the walls of the tombs of Nebamon and Ipuky, and Apuy at Thebes are being copied.

SYRIA AND PALESTINE

JERUSALEM.—Excavations in 1913-1914.—In *R. Arch.*, fifth series, X, 1920, p. 367, S. R. gives a brief summary of the first part of a detailed account by R. WEILL (*Revue des études juives* LXIX, 1919, Nos. 137-138) of his excavations, in 1913-1914, in the soil of the primitive city of Jerusalem in search of the tombs of the Kings of Judah. In this portion the Canaanite acropolis, the form of the Canaanite city, the ancient names of the valleys and springs, the extensions under Solomon, the eastern front of the city and its history, the royal tombs, the waters of Cedron and their rôle in the history of the southeastern front of the city, are all discussed. The fourth chapter sets forth the previous archaeological labors at this site, with their results, and closes with a general exposé of the archaeological situation in 1913.

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor BATES, Editor-in-charge, assisted by Professor C. N. BROWN, Miss MARY H. BUCKINGHAM, Dr. T. A. BUENGER, Professor SIDNEY N. DEANE, Professor HAROLD N. FOWLER, Professor HAROLD R. HASTINGS, Professor ELMER T. MERRILL, Professor LEWIS B. PATON, Professor A. S. PEASE, Professor S. B. PLATNER, Professor JOHN C. ROLFE, Dr. JOHN SHAPLEY, Professor A. L. WHEELER, and the Editors, especially Professor MARQUAND.

No attempt is made to include in this number of the JOURNAL material published after June 30, 1920.

For an explanation of the abbreviations, see pp. 118-119.

ASIA MINOR

CHIOS.—Recent Excavations.—In 'Αρχ. Δελτ. I, 1916, pp. 64–93 (38 figs.); II, 1917, pp. 190–215 (40 figs.) K. ΚΟΥΡΟΥΝΙΑΤΗΣ publishes the results of his excavations in Chios since 1913. At Latomi thirty tombs were opened all but one of which had been plundered. At a place called Phana the remains of the temple of Apollo Phanaeus were discovered badly preserved. The building was of the Ionic order and probably dates from the sixth century B.C. There are also Byzantine remains on the site. A few inscriptions were discovered and many vase fragments including some Corinthian and some of the style of Naucratis. The most important metal object found was a silver statuette with traces of gilding, 6.5 cm. high, representing a warrior. It dates from the sixth century. The fore part of a horse of bronze, 11 cm. high, was also brought to light. In another part of the island part of a relief of a man on horseback was discovered.

GREECE

CARDITSA.—A Hoard of Silver Coins.—In 1914 there was found near Carditsa a jar containing 1647 silver coins, of which 1593 were secured by the National Museum at Athens. These are published in detail by I. N. SVORONOS in 'Αρχ. Δελτ. II, 1917, pp. 273–335 (8 pls.). They are mostly coins of Boeotia, e.g. 945 are from Thebes, but there is an interesting series of 221 from Aegina, and another of 188 from Sicyon. They date from the earliest period down to 315 B.C. One coin from Thebes, three from Tanagra, and one hundred from Aegina are supposed to be earlier than 550 B.C. Many of them are rare and unpublished.

CORONEA.—Inscriptions from the Temple of Heracles Charops.—In 'Αρχ. Δελτ. II, 1917, pp. 217–272 N. G. PAPPADAKIS publishes a long inscription found in the Byzantine church of Hagia Paraskeve, about an hour southeast of ancient Coronea. A similar, but shorter inscription from an unknown site has been in the museum at Thebes since 1902. Both have to do with the cult of Heracles Charops (Paus. IX, 34, 5). The position of the shrine has not yet been definitely determined.

CYTHERA.—Mycenaean Graves.—In 'Αρχ. Δελτ. I, 1916, pp. 191–194 (2 figs.) V. STAES describes his excavation of two caves on the island of Cythera. A woman's grave of late Mycenaean times and two men's bodies were discovered. There were a few vases, partly Cretan importations, a globular vase of steatite with designs engraved on it which must have come from Crete and is much older than the graves, and a low covered vase with a spout which is clearly Mycenaean, as the decoration shows, but in shape like Boeotian vases of the fifth century.

DAMANIA.—A Mycenaean Tomb.—In 'Αρχ. Δελτ. II, 1917, pp. 171–178 (2 figs.) S. A. XANTHOUDIDES describes a tomb found in 1915 at the small town of Damania, Crete. It is rectangular in shape, with the sides gradually pushed in so that a single row of stones covers the top, and has a dromos about ten metres long in two sections. Three vases and three *larnakes* in it show that it dates from the third Late Minoan period.

ERETRIA.—The Temple of Isis.—In 'Αρχ. Δελτ. I, 1916, pp. 115–190 (28 figs.) N. PAPADAKIS describes his excavation of the temple of Isis and the buildings connected with it at Eretria. A few unimportant sculptures, many lamps and coins, and a few vases and inscriptions were brought to light.

GOURNES.—Early Minoan Tombs.—In 'Αρχ. Δελτ. I, 1916, pp. 59–63 (4 figs.) I. HATZIDAKIS records the excavation of several Early Minoan tombs containing clay and stone vases at Gournes, Crete. There were also found Late Minoan tombs containing *larnakes*.

LONGAS.—The Temple of Apollo Corynthus.—In 'Αρχ. Δελτ. II, 1917, pp. 65–118 (pl.; 58 figs.) P. VERSAKIS describes the remains of the temple of Apollo Corynthus (see Paus. IV, 34, 7) excavated by him south of Longas. There are two groups of buildings, one to the north consisting of two temples and one to the south where there were three. Of the first group one measured 11.32 m. by 7.52 m. It dates back, perhaps, to the fourth century B.C. and, at least in its latest form, was an Ionic temple *in antis*. In front of this was another smaller building running from north-west to southeast, dated by the Laconian or Cyrenaic vases found in it in the eighth century. Of the group to the south one was an archaic Doric temple of which a capital is preserved. It was hexastyle with twelve columns on the sides, and probably dates from the last quarter of the sixth century. There are also remains of two earlier temples apparently dating from the eighth century. Many small objects of



FIGURE 1.—BRONZE HOPLITE FROM TEMPLE OF APOLLO CORYNTHUS.

bronze came to light during the excavations including fish-hooks, nails, handles, lance heads, etc.; also iron nails, and various objects of terracotta. Seven bronze statuettes were discovered, the finest of which (Fig. 1) represents a hoplite. It is well preserved except for the feet and left hand. Another earlier figure apparently represents Apollo and dates from the sixth century. Several short inscriptions were found including dedications to Apollo Corynthus in Temple A. The oldest temple was D, then next in date E and B. This Apollo was a warrior god not unlike the Amyclaeen Apollo.

MYCENAE.—Recent Excavations.—The British School at Athens has obtained permission to excavate further at Mycenae, and in the *Literary Sup-*

plement of the London *Times* for June 24, 1920, A. J. B. WACE gives a brief account of the results thus far reached. Study of the Royal Grave Circle has yielded evidence that Mycenae was inhabited at the end of the neolithic age, and was a flourishing city during the Middle Helladic period (2000–1580 B.C.). To the end of this period belong the earliest interments in the Grave Circle. The palace, which was much more extensive than the simple *megaron* type described in the books, and the latest burials belong to the Late Helladic period. Much later, after the fall of Cnossus, the city was fortified, the wall being carefully carried around the site of the graves; the enclosure was then filled, levelled, and surrounded by the double row of stone slabs. The excavation of a large building between the Lion Gate and the Grave Circle, begun by Schliemann, was resumed. It seems to have been a royal granary and was destroyed during the Dorian invasion. Here was found a series of vases falling between the Mycenaean and Geometric styles, which fill a gap in the history of Greek pottery. Examination of the "Treasury of Atreus" led to the discovery beneath the threshold of a small deposit of gold leaf, beads, and ivory, and also a fragment of a vase of typical late Mycenaean ware. The tombs may therefore be dated between 1400 and 1200 B.C., the traditional date of the dynasty of Atreus. *Ibid.* July 15, SIR ARTHUR EVANS criticises some of the conclusions reached by Mr. Wace. He argues that the shaft-graves and their contents do not belong to an indigenous Helladic dynasty, but to Minoan dynasts of the Middle Minoan and First Late Minoan periods. The stelae, which were originally covered with painted stucco, are contemporary with the graves and not due to a later systematization of the site. The "Treasury of Atreus" cannot be separated from the other great domed tombs of Orchomenus, Vaphio, and Kakovatos, all of which are dated by the pottery in Late Minoan Ib, or *ca.* 1500 B.C.

PHALERUM.—Recently Excavated Graves.—In 'Αρχ. Δελτ. II, 1917, pp. 13–64 (59 figs.) S. PELEKIDES describes eighty-seven graves opened by him at Phalerum. The vases found in them show that they date chiefly from the seventh century B.C. One large grave of later date contained the remains of eighteen men lying in two rows one above the other. They had iron rings about their necks and shackles on legs and arms. They were evidently executed, and the writer believes they were the men put to death on the information of Andocides for mutilating the Hermae.

THEBES.—The Results of the Excavations.—In 'Αρχ. Δελτ. III, 1917, pp. 1–503 (map; 212 figs.) A. D. KERAMOPOULLOS gives a detailed account of the excavations carried on at Thebes for a number of years, some of which have already been published. At the Gate of Electra two large circular towers were uncovered, and to the north remains of houses of different periods. Both within and without the gate the earth had been disturbed and objects of different date, some going back to pre-Mycenaean times, were found mixed together. In 1914 ten late Mycenaean graves were opened in this vicinity. The most important discovery was the site of the temple of Ismenian Apollo on a hill to the north of the church of St. Luke. The identity is made certain by two inscribed bronze vessels found in 1900. There were three temples on the site. The earliest dates from the geometric period. It was of sun-dried brick and wood and presumably without columns. It was destroyed by fire about 700 B.C. Remains of this building may be seen on the west slope of the hill. The

second temple was built of stone in the Doric style, also in geometric times. It lasted until the fourth century when it was pulled down and rebuilt in an enlarged form with a peripteros in such a way as to include the dedications in the old temple. This third temple was still in existence in the time of Pausanias. It was a hexastyle Doric building with twelve columns on the side. It was 46.25 m. long and 22.83 m. wide. Many of the details of its architecture are preserved. Mycenaean tombs were found in the vicinity, five lying under the



FIGURE 2.—WALL PAINTING FROM THE "HOUSE OF CADMUS": THEBES.

temple. Twenty-eight more were opened on the hill of Kolonaki south of the Cadmea. Two tombs go back to the period of Late Minoan II, and four others show a transition between this and the following period. Many later graves were also found. In the House of Cadmus, which was destroyed by fire, the excavations were not completed; but part of a fresco (Fig. 2) representing a standing woman holding three lilies in her right hand and a polychrome vase in her left was found. There was evidently here as in the palace at Tiryns (see *A.J.A.* XV, 1911, p. 424), a frieze depicting a procession of women. The writer also discusses in detail the topography of Thebes.

THERMON.—The Excavations of 1913-1915.—In 'Αρχ. Δελτ. I, 1916, pp. 225-279 (41 figs.); II, 1917, pp. 178-189 (11 figs.) K. A. ROMAIOS describes his excavations at Thermon (see *A.J.A.* XXIV, pp. 92 f.). North and east of the temple it was shown that an earlier temple existed with slightly different orientation. Still earlier than this there was a large building to the north. This, he thinks, was the palace of the king, as well as temple, from very early times, perhaps as early as 1500 B.C. After its destruction the archaic temple was built and lasted down to about 620 B.C. It, too, probably served as temple and palace during the geometric period. The later temple was destroyed at the end of the third century B.C. The elliptical buildings had roofs constructed of pieces of wood and twigs covered with clay, as bits of dried clay with marks of twigs on them show. They appear to date chiefly from Late Minoan III. The pottery may be divided into six classes, three of which contain the painted and three the unpainted vases. Three bronze statuettes appear to date from about 700 B.C. One wearing a conical helmet may represent Artemis. Many pieces of the gutter of the Lyseum still exist and more than fifty pieces of the terracotta metopes decorated with lions, dogs, female figures, and in one case a centaur, inscribed Φ|λο|ς. Two fragments of carved marble long known belonged to the trophy erected by the Aetolians to commemorate their victory over the Gauls.

ITALY

DISCOVERIES IN 1919.—In the *Literary Supplement* of the *London Times* for January 15 and 22, 1920, THOMAS ASHBY reports on archaeological research in Italian lands during 1919. There have been no sensational discoveries but much good work. In **Rome** the underground basilica near the Porta Maggiore has been much discussed but no sure conclusion as to its nature has been reached. The peculiar method of construction, by which the concrete walls, piers, and vaults were set before the nave and aisles were excavated, may have been adopted for purposes of concealment. At the church of S. Sebastiano on the Via Appia three pagan tombs have been found with notable paintings and stucco decorations. The restoration of Santa Sabina in the Aventine has also been completed. At **Pompeii** the new methods of excavation preserve much hitherto destroyed. The painted exteriors, balconies, and loggias must have given the town a more cheerful aspect than has been suspected. Some of the new paintings might almost have been executed in the seventeenth century. The municipal police station has been found at a street corner. It consists of a large room, separated from the street on one side only by a grille. In one house two floors with painted ceilings have been reconstructed, and in another the atrium has been roofed and a stairway rebuilt. In fact this house seems to lack nothing but the inhabitants. A large fulling establishment has a new type of atrium with a flat roof. At **Ostia**, a trading centre, many of the buildings are store-houses and the dwellings are built with much economy of space, conforming closely to the modern type of apartment house. Work has been carried on here by Austrian prisoners of war, and has served also as a public utility, since the sand removed has been used for dykes along the Tiber. The excavations are chiefly on the north of the main street, which is a continuation of the highway from Rome. The plan of the city was rectangular. A space over 500

yards long, from the baths to the "little market" has already been cleared and work is proceeding toward the gate and the river. At **Albano** the amphitheatre has been partly cleared, and work has been carried on at Santa Maria della Rotonda, which was a nymphaeum in the garden of Domitian's villa and only consecrated as a church in 1060. In the fourteenth century it was decorated with paintings of the Invention of the Cross. The second article, on Sicily and Sardinia, is based on the reports in *Mon. Ant.* Excavations around the temple of Athena in **Syracuse** have brought to light remains of the pre-Hellenic and early Greek periods. The temple is dated by Orsi about 474-460 B.C. Traces of an archaic temple, a large altar, and two small shrines were found, as well as a number of smaller objects and fragments, including a remarkable series of painted architectural terracottas. It has also been discovered that temple C, the oldest and largest temple at Selinus, had in the centre of one pediment a huge Gorgoneion of painted terracotta. In **Sardinia** the discoveries indicate early connexions with Crete and the Mycenaean civilization, as well as Sicily, Malta, and perhaps Egypt. Near **Sardara** a temple of the "nuraghi" period has been discovered with sufficient architectural remains to make possible an ideal reconstruction of its decoration. Beneath the temple was a vaulted chamber over a sacred spring. There was also some evidence for the worship of a bull-god. In another part of the island a group of rock-cut tombs was cleared. One contained an imitation of the poles supporting the thatched roof of a circular hut, and another a close parallel to the false timber roofs of Etruscan tombs. At **Cyrene** the so-called temple of Apollo has turned out to be dedicated to Hadrian. A circular building on the Agora was the meeting place of the priestesses of Hera. By an arrangement with the military authorities the most important part of the site has been reserved for archaeological purposes. In conclusion attention is called to the loss sustained by archaeology in the deaths of such scholars as Rivoira, Colini, Fornari, and Reina,—a loss which is the more serious in view of the wealth of material which still awaits publication.

ARICCIA.—Relief with Egyptian Scenes.—In *Not. Scav.* XVI, 1919, pp. 106-112 (fig.) R. PARIBENI reports the discovery, near the church of S. Maria della Stella and about 15 m. from the embankment of the Via Appia, of a fragment of a relief, 1.49 by 0.50 m., of Luna marble. It formed part of the cover of an inhumation tomb. The relief is in three zones. The upper one is supported at the right by a Telamon of Egyptian style, and there was undoubtedly another at the extreme left; it contains a shrine with a conical top, a figure of the bull Apis, and a colonnade with various figures. The middle zone, which is the largest, represents a lively dance; some of the figures have Hottentot characteristics. The third and narrowest zone contains a row of ibises; there are also a crab and a snake, which two of the ibises are about to devour. It seems probable that the relief originally belonged to a tomb on the Appian Way, and that the dance, in which there is an element of burlesque, is connected with some festival of Isis and Serapis. Paribeni would assign the relief to the time of Hadrian.

CAERE.—Recent Discoveries.—In *Not. Scav.* XVI, 1919, pp. 92-98 R. MENGARELLI publishes a number of fragmentary inscriptions from various places in Regio VII (Caere and vicinity); also (pp. 98-99) a marble head from the neighborhood of Caere, perhaps the portrait of a late emperor.

GIARRATANA (SICILY).—In *Not. Scav.* XVI, 1919, pp. 86-88 BIAGIO PACE reports discoveries in a late Roman necropolis in the district called Margi.

MARSALA.—Inscriptions from Lilybaeum.—In *Not. Scav.* XVI, 1919, pp. 80–86 BLAGIO PACE publishes a number of inscriptions, mainly amphora stamps of Punic type from ancient Lilybaeum, of which 15 are Greek and one Punic. Also two vase inscriptions. He further gives an account of finds in the neighboring necropolis.

OSTIA.—Inscriptions.—In *Not. Scav.* XVI, 1919, pp. 72–80 (2 figs.) G. CALZA reports numerous minor discoveries, including a number of inscriptions. Among the latter was one which mentions a consul of 228 A.D., probably Probus; one which contains another example of the rare adjective *Ias* (= *Ionica* or *ex Ionia*); a fragment of a *lex collegii*; and a metrical inscription in a fragmentary condition, which is said to be unique as being a commentary on some work of art, perhaps the Nereid group of which one figure was published *ibid.* 1893, p. 312.

Two Tombs.—Near the cemetery of S. Ercolano, on the road from modern Ostia to Castel Fusano, two small tombs of different epochs were discovered. The earlier one, which had been partly destroyed in ancient times by the builders of the second tomb, was of rectangular form with a vaulted covering. It fronted towards the north, apparently facing a road running east and west. The walls were of reticulate work covered with white stucco and decorated with branches, leaves and flowers. Nearby were found two terracotta masks of children with holes for suspension through the top of the forehead and through each ear; also several small objects, including a lamp of form 24, *C. I. L.* XV. (G. CALZA, *Not. Scav.* XVI, 1919, pp. 70–72; fig.)

ROME.—Fragment of an Arval Inscription.—In *Not. Scav.* XVI, 1919, pp. 100–106 R. PARIBENI publishes a new fragment of the *Acta Fratrum Arvalium*, apparently belonging to the year 140 A.D., recently acquired by the Museo Nazionale. It consists of the lower part of two columns, one of which lacks about one half of its width, while of the other only a small part is preserved. On the back in rough characters is an inscription of the ninth consulship of Diocletian and the eighth of Maximianus (304 A.D.). If this last inscription belongs to the *Acta*, as Paribeni thinks, it is the latest record of the existence of the Arval Brothers. It appears merely to designate a *magister* of the brotherhood.

An Ancient Hypogaeum.—On the right hand side of the Via Appia Antica, between the basilica of S. Sebastiano and the tomb of Caecilia Metella an ancient hypogaeum of the imperial period has been found with wall decorations and inscriptions. (G. MANCINI, *Not. Scav.* XVI, 1919, pp. 49–57.)

Miscellaneous Discoveries.—In *Not. Scav.* XVI, 1919, pp. 38–44 E. GATTI reports the discovery of several inscriptions, one of which, found near the corner of the Via Po and the Via Tevere, contains eleven lines and has “some literary pretensions.” It contains an unusual number of apices, correctly placed. Mancini also reports a number of minor discoveries in various parts of the city.

Greek Inscriptions.—In *Not. Scav.* XVI, 1919, pp. 60–70 R. PARIBENI publishes a large number of Greek inscriptions from the Jewish cemetery of Monteverde, on the Via Portuense.

S. QUIRICO D'ORCIA.—Etruscan Antiquities.—In *Not. Scav.* XVI, 1919, pp. 89–92 A. MINTO records the discovery of a small Etruscan *sepulcretum* near S. Quirico d'Orcia (Siena), containing twelve urns with Etruscan inscriptions and a few bronze objects. A Roman coin fixes the date as the second half of the third century before our era.

SARDINIA.—Miscellaneous Discoveries.—In *Not. Scav.* XVI, 1919, pp. 120-187 (42 figs.) A. TARAMELLI describes a number of interesting discoveries and explorations in Sardinia, including several sacred springs and wells, dolmens and nuraghe, a few Latin inscriptions, including a fragmentary milestone and a stamp for inscribing new year's gifts with a wish for a *largus annus*, a votive tablet with Egyptian reliefs and an inscription, late Roman tombs with bronze and golden ornaments, a Punic altar with reliefs and an inscription, Byzantine decorative fragments, a proto-Sardinian temple, and a small hoard of late Roman coins.

TERRANOVA PAUSANIA (SARDINIA).—Two Portrait Heads.—In *Not. Scav.* XVI, 1919, pp. 113-120 (4 figs.) A. TARAMELLI describes two marble heads found within the limits of the ancient Roman town of Olbia. The first, in Greek marble, is undoubtedly a head of Trajan; it is intended to be inserted in the body of a statue by a wedge-shaped continuation of the neck. Including this, the head is 0.44 m. in height, well preserved, and representing the emperor in the latter part of his life. It evidently formed part of a public honorary statue, perhaps erected to commemorate the making of the port at Centumcellae. The other head is also provided with a wedge-shaped appendage and is of the same dimensions as the other. The features suggest a member of the Julio-Claudian family. Taramelli is inclined to regard it as a portrait of the younger Drusus, son of Tiberius.

VEII.—Excavations 1913-1919.—In *Not. Scav.* XVI, 1919, pp. 1-37 (7 pls.; 12 figs.) an account is given of the excavations conducted at Isola Farnese, the site of the ancient Veii, from 1913 to date. The work was begun under the charge of G. A. Colini, who died before it was completed. He was succeeded by G. Q. Giglioli, and during the latter's absence on war duty the excavations were directed by E. Stefani. The *Municipium Augustum Veiens*, which flourished during the latter part of the reign of Augustus and that of his successor Tiberius, was explored between 1811 and 1820, and inscriptions, statues, and coins were found. Between 1838 and 1843 further explorations were conducted on the site of the Roman city and the extensive necropolis was partly excavated, including the famous *tomba Campagna*. Lanciani's excavations in 1888-89 were more systematic, but many gaps were left and comparatively little was done on the site of the Etruscan city. The excavations begun in 1913 were designed to fill the gaps and make a systematic examination of the entire field.

In the necropolis, where the excavations were first carried on, some 1200 tombs were opened, of which the greater number had been rifled in ancient or in modern times. Nevertheless, over 6000 objects were found, including Italo-geometric and proto-Corinthian vases and fine Bucchero ware. The objects which were found belonged to three periods, dating from the tenth to the eighth centuries before our era, the eighth to the sixth, and the sixth and fifth. No Attic vases came to light.

One of the tombs, which has been preserved entire in the Museum of the Villa Giulia, shows the dead man buried under seven shields, which completely cover him, recalling the story of Tarpeia. The warrior wore a crested bronze helmet and had by his side a sword of iron ornamented with gold and amber, while at his feet were a horse's bit and the remains of a car. His robe was fastened with a fibula of gold. Another find was a beautiful bronze shield, recall-

ing those of the Salii. This part of the excavations is described by G. A. COLINI, and is followed by a notice of the writer's death, by F. BARNABEI.

In the city itself excavations in the southern part (the so-called piazza d'Armi) revealed primitive dwellings of the Italic period, while over these were houses of the so-called "orientalizing" epoch, with vases belonging to centuries

VIII-VI B.C. Painted tiles and a terracotta statuette indicated the existence of the temple which was located there in the plan of Canina. The most important discovery was in the locality known as Cannetaccio at the southern boundary of the city, where the hill on which Veii lay slopes down to the Fosso dei due fossi, a tributary of the Cremera. Here a number of fragments of tiles, antefixes, and votive offerings were found, which had fallen from above. A level place called Portonaccio is crossed by a Roman road, part of which was already known. This road was further explored and found to be in good condition, and near it a wall of large tufa blocks forming part of a temple came to light along with many terracotta fragments. A number of trial ditches were dug, one of which ran into several statues which were broken, but were standing in an upright position beside the road, where they had evidently been placed carefully at the time when the road was built across the sacred enclosure. The statues, which were decorated with colors, were taken to the Museum of the Villa Giulia.

The first of these statues (Fig. 3) was a male figure 1.75 m. in height from the top of its head to the plinth on which it stood. Since the body is inclined forward, the actual height of the statue is about 1.80 m. with corresponding proportions. It represents the god Apollo, advancing towards the right. Nine long black curls of hair hang upon his shoulders. He is clad in a short chiton,



FIGURE 3.—TERRACOTTA APOLLO:
VEII.

ending above the knees, and bordered on the neck and shoulders with a double line of purple, and below with a single line of the same color, about 1 cm. in width. Over the chiton is an himation, which falls from above the left shoulder and covers the back. It then passes under the right arm and over the right shoulder and falls vertically behind the back. This has a border a little wider

than that on the lower part of the chiton and of the same color. The legs and feet of the god are bare, and the arms, which are missing, were also bare. The appearance of the shoulder muscles indicates that the left arm was carried slightly back of the body and the right some little distance before it, as in walking. The hair is bound by a cord-like fillet, which passes from the forehead to the nape of the neck behind the ears. Within the space included by the fillet the hair is carefully combed; on the forehead were two rows of curls in relief, of which the greater number have been broken off. Those on the temples, which are longer than the others, are preserved. The god inclines forward, resting firmly upon the right foot; the left is carried back and raised a little, completing the step. The muscles are strained as in walking, and the drapery clings to the body, as if caught by the wind. The god looks forward and downward with an impassive expression. The statue is practically entire, except for the arms, and is remarkably well preserved, although it had been broken into two parts when it was laid away. The whole surface is painted, the nude parts being reddish-brown, the hair and eyebrows black, the eyes white with a reddish iris and black pupil. The robe is uncolored and has the clear yellow color characteristic of archaic terracotta. The head is somewhat small for the body, the face measuring 165 mm. from hair to chin and 130 across the cheeks. The statue rests upon a rectangular plinth $59 \times 38 \times 5$ cm., which is almost entire; the feet projected over the edges and are broken. On the plinth is a support which rises between the legs of the statue and has its upper part covered by the himation; it is decorated with palmettes and volutes. The appearance of the statue, which was made and baked in one piece, indicates that it was intended to be seen from the left side. Through the support and running the length of the plinth is a hole, 65 cm. in diameter, through which a pole could be passed for transporting the image. There are two oval openings into the interior of the figure, one under the support, about 12 cm. long, and one between the shoulders, 16×8 cm.

A second statue, of the same dimensions as the one just described, is preserved only in part. It represents the feet of a man, painted reddish-brown, and an animal apparently a hind. The latter appears to be alive and is bound in the characteristic fashion in which beasts were carried to market in ancient times. That is to say, the lower part of the front legs and of the hind legs are brought together and bound to each other with an osier or a thong. The plinth, which is small ($65 \times 37 \times 5$ cm.) as in the case of the Apollo, is surmounted by a large support, originally about 80 cm. high, and adorned with palmettes and volutes. On this support appears the paw of a lion, by which the male figure is identified as that of Heracles. There is a large hole under the support, as in the statue of Apollo, and smaller lateral openings in the body of the hind and in the support. The coloring is similar to that of the Apollo, the nude parts being reddish-brown, the hind and the lion skin the natural color of the terracotta, the hoofs of the animal and the bonds by which the legs are tied, black. The palmettes are red and dark blue, as in the archaic antefixes.

A beardless male head, with the neck and a part of one shoulder, found a short distance away from the statue of Heracles, is identified by its winged cap as that of Hermes. Its dimensions correspond with those of the Apollo (the face is 16×12 cm.), and it evidently belonged to a statue of the same size. Nine large ringlets of hair fell upon the shoulders, of which only five are preserved,

while in front, as in the Apollo, there are two rows of curls, of which those over the temples are larger than the rest. The colors are similar to those of the Apollo. Enough of the left shoulder is preserved to show a bordered chiton, similar to that of the Apollo. The helmet-shaped cap is red except for the part turned back, which is yellow with traces of decoration. The wings on the cap are adorned with scales. In the top of the cap are two small holes and there is a similar one on the left shoulder. These seem to have been intended to hold metal objects, probably *μηνίσκοι*. Except for the end of the nose the face is perfectly preserved. There are indications of an oval opening in the back of the figure, like that of the Apollo. There was also found what is thought to be a part of the same statue. It represents a male figure from the belly to the knees, with the bare legs painted reddish-brown. Parts of the chiton and of the himation are preserved and have a purple border. There are remains of a support, on which the palmette is painted, not sculptured, as in the other statues. There was also found a small portion of the drapery of a fourth figure of the same dimensions as the other three.

It seems certain that the first two statues formed a group, of which the subject was a contest between Apollo and Heracles about a hind. Such a contest is represented on several monuments collected by Overbeck in his *Kunstmythologie* (Apollo) III, pp. 415 ff. and reproduced in *Not. Scav.* In one illustration the animal's legs are tied exactly as in the statue of Heracles. On the basis of these representations the group is reconstructed in the following order: Hermes—Heracles and the hind—Apollo—a fourth figure, perhaps Artemis. Owing to the similar size of the figures they could not have belonged to a pediment group and they are too tall for acroteria. Hence it is assumed that they formed a votive group not directly connected with the temple, but deposited in the sacred precinct as an *ex voto*. The work is ascribed to the school of Vulca of the sixth and fifth centuries B.C.

SPAIN

NEW INSCRIPTIONS.—In *Mél. Arch. Hist.* XXXVII, 1918–1919, pp. 309–331 EUGÈNE ALBERTINI publishes some new inscriptions, and emendations and additional epigraphic information in the case of others already published, derived first from certain manuscript sources in Spain, *i. e.* the original of the second volume of Pérez Bayer's diary of 1782 which had been lost, notes made in the eighteenth century by Velazquez, marquis of Valdeflores, and some manuscripts in the library of the Historical Academy at Madrid; and secondly from monuments which he himself examined in 1909–1912.

BOLONIA.—**Excavations in 1919.**—In *C. R. Acad. Insc.* 1919, pp. 234–236 P. PARIS reports upon the excavations at Bolonia in 1919 (see *A.J.A.* XXIII, 1919, pp. 84 and 318). The necropolis still yields fine pieces of pottery and glass, and furnishes much information about burial rites both before and after the Roman conquest. The part now being explored dates from the third century. In the village were found three sanctuaries overlooking a large public square. They had a rectangular cella with engaged channeled pilasters along the side walls and statues at the rear. In front was a vestibule with columns. Each temple stood on a high podium and was approached by steps. They were built of a local stone and completely covered with stucco inside and out.

Enough has been found to permit a reconstruction. In front of the middle temple were two large altars. No inscriptions were discovered, but fragments of a statue of Ceres in the temple at the right indicate that that building was dedicated to her.

FRANCE

ENSÉRUNE.—Recent Excavations.—In *C. R. Acad. Insc.* 1919, pp. 293–294 F. MOURET reports upon the latest excavations at Ensérune, near Béziers (Hérault). Vases of four types have been found: (1) Imported Greek craters dating from the fourth century B.C. (2) Italiot vases, chiefly Campanian, consisting of craters and scyphoi, decorated with leaf patterns, also plates with stamped ornamentation. (3) Iberian vases probably imported from Spain, with linear and pseudo-Mycenaean decoration, primitive in appearance, but dating from the fourth and third centuries B.C. (4) Black or gray vases without decoration, or with geometric designs in white. These are of local manufacture, but there are among them some examples of bucchero ware imported from Etruria. There has also been found a terracotta figurine of a seated goddess with her left hand hanging idly and her right on her right knee. This was clearly made from an imported Greek mold and is good evidence for the penetration of Greek art into pre-Roman Gaul.

MARSEILLES.—The Syrian Congress.—In *C. R. Acad. Insc.* 1919, pp. 225–228 E. BABELON makes a brief report on the archaeological and historical sections of the French Syrian congress held at Marseilles in 1919, giving a list of the papers.

GERMANY

MISCELLANEOUS DISCOVERIES IN THE RHINE PROVINCE.—The museums and archaeological societies in the Rhine province report their activities and acquisitions during the years 1914–1918 in the "Beilage" to *Bonn. Jb.* 125, 1919, pp. 1–168 (12 pls.). Worthy of remark are the following: the discovery of neolithic and La Tène settlements near **Sarmsheim**; palaeolithic, neolithic and La Tène settlements near **Kreuznach**; a neolithic settlement near **Kottenheim**; Hallstatt graves near **Allenz**; a new camp of uncertain date near **Remagen**, and the continuation of the excavations in the Roman camp at that place; excavations in Roman and Frankish structures connected with the church of St. Maximinus at **Trier**, and minor excavations in the imperial *thermae* and amphitheatre; exploration of Roman potteries near **Speicher**.

COBLENZ.—A Precinct of the *Matronae Vacallinae*.—A precinct dedicated to local divinities known as *Matronae Vacallinae*, recently excavated in the neighborhood of Pesch near Coblenz, is described by HANS LEHNER in *Bonn. Jb.* 125, 1919, pp. 74–162 (27 pls.). Three successive groups of buildings occupied the same location. The first, built about 50 A.D., comprises an enclosure for votive offerings, two small square temples, a *horreum* and a cistern. The second, dating from 200 A.D., consists of a larger square temple and a small hexagonal monopteros probably dedicated to Jupiter. The third dates from about 330 A.D. The following buildings belong to it: a rectangular cella sur-

rounded by a porch, a new enclosure for votive offerings, a basilica with an apse perhaps devoted to Magna Mater, two rectangular buildings and a long stoa running the length of the precinct. The sanctuary seems to have been violently destroyed, perhaps at the beginning of the fifth century. The usual inscriptions, fragments of sculpture, architectural details, coins, potsherds, etc., were found in the course of the excavation.

COLOGNE.—A Colossal Head of Agrippa.—A colossal marble head found in Cologne has been identified as a portrait of Agrippa. The statue to which it belonged probably stood near the place where the head was discovered on a concrete foundation which has been known for a long time. It may have been erected shortly after the death of Agrippa, 12 B.C. (H. J. LUECKGER, *Bonn. Jb.* 125, 1919, pp. 178-182; pl.).

GREAT BRITAIN AND IRELAND

DUBLIN.—Acquisitions of the Royal Irish Academy.—In *Proc. Soc. Ant.* XXX, 1918, pp. 237-239 (fig.) E. C. R. ARMSTRONG notes that in 1918, the Royal Irish Academy acquired a gold fibula with cup-shaped ends, a gold bracelet, two bronze rings, and 124 amber beads. They were all found together some years ago near Banagher, King's County. They apparently date from the latest period of the Irish Bronze Age, about the fifth century B.C.

HOWLETTS.—A Newly Discovered Cemetery.—In *Proc. Soc. Ant.* XXX, 1918, pp. 102-113 (3 pls.; 2 figs.) R. A. SMITH describes the prehistoric and Anglo-Saxon remains from a recently discovered cemetery at Howletts, near Bridge, Kent. Many Jutish graves containing arms and jewelry and dating from the sixth century were excavated. Silver and bronze brooches and beads of amber and glass were found in the women's graves. Palaeolithic implements were also discovered on the site.

ISLIP.—Anglo-Saxon Antiquities.—In *Proc. Soc. Ant.* XXX, 1918, pp. 113-118 (pl.; 5 figs.) R. A. SMITH reports the discovery of Anglo-Saxon antiquities at Islip, Northants. They consist of fragments of cinerary urns, bronze brooches, glass beads, pieces of glass vessels, etc. Two well-preserved Roman urns were also found. Most of the antiquities are Anglian of the sixth century.

NORTHERN AFRICA

UNPUBLISHED PUNIC INSCRIPTIONS.—In *C. R. Acad. Insc.* 1919, pp. 208-216 J.-B. CHABOT reports upon his mission to Northern Africa to find unpublished epigraphic material for the *Corpus Inscriptionum Semiticarum*. In all 260 squeezes were made, 200 of inscriptions important for the *Corpus*, and 170 hitherto unpublished. A few unpublished Libyan inscriptions were copied.

KSIBA.—A Christian Epitaph.—In *C. R. Acad. Insc.*, 1919, pp. 248-251 P. MONCEAUX publishes a Christian epitaph found at Ksiba, the ancient Civitas Pophthensis, in Algeria in 1917. It dates from the end of the fourth century and has several unusual features. It reads *Rogatianus, ab ortu vitae in functionis diem probatissimus Deo venerandi minister altaris, vixit in Ec(c)lesia annis LXXVIII. In pace accersitus IV Kal(endas) iun(ias)*.

UNITED STATES

NEW YORK.—Recent Acquisitions of the Metropolitan Museum.—In *B. Metr. Mus.* XV, 1920, pp. 107–109 Miss G. M. A. R(ICHTER) notes the recent acquisitions of the classical section of the Metropolitan Museum. They include the following: *Marbles.* A fragmentary statue of an old fisherman, a replica of the fisherman in the Palazzo dei Conservatori in Rome; the head of a youth dating from about 480 B.C.; a statuette of a boxer of the fourth century; one of Aphrodite bending over to loosen her sandal, a Roman copy of a fourth century original; and three Roman portrait heads. *Bronzes.* A statuette of a warrior dating from the sixth century; one of a bull, of the fifth century; one of an athlete of the fourth century; and two of Hellenistic date representing a negro boy, and a bust of Zeus with the aegis; three Corinthian helmets; a Roman statuette, perhaps a copy of the Hermes Propylaeus of Alcamenes; and a handle in the form of a youth bending backward. *Vases.* A geometric stand; three Rhodian vases of the seventh century; a small Corinthian cup; three black-figured vases, an amphora with a marriage procession, a cylix decorated with maenads and satyrs, and a scyphos with the figure of Nereus riding a hippocamp; three important red-figured vases, a hydria decorated with a domestic scene (published by Tischbein), a hydria with a figure of Eros putting on a lady's sandals, and a lecythus on which a woman is depicted giving a warrior a drink. There were also acquired a gold fibula of the seventh century; two gold earrings; a set of two cups, a jug, a ladle, and seven spoons, all of silver, from Boscoreale; and fourteen Arretine moulds.

PHILADELPHIA.—Greek Vases.—In *Mus. J.* XI, 1920, pp. 56–67 (9 figs.) S. B. L(UCE) publishes seven much injured Greek vases recently put together in the Museum of the University of Pennsylvania from fragments from Orvieto. They are: 1. an Attic black-figured amphora having on one side Heracles and the Erymanthian boar, and on the other a four-horse chariot seen from in front; 2. a black-figured hydria decorated with a chariot scene of which little remains; 3. an Attic black-figured column crater which originally had a scene of combat on one side, and a lion attacking a bull on the other; 4. a Chalcidian oenochoe decorated with a band of warriors; 5. a drinking cup without handles painted black but with a medallion in the centre in which is a bird in black; 6. a red-figured cylix of late severe style with scenes representing women at their toilet, assigned by the writer to the "Penthesilea master"; 7. a south Italian stamnos with maenads and centaurs.

EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL, AND
RENAISSANCE ART

ITALY

BOLOGNA.—Two Reliefs in San Petronio.—In *Boll. Arte*, XIII, 1919, pp. 133–138 (6 figs.), G. ZUCCHINI publishes two works of art of the fourteenth century in the Bolognini chapel of San Petronio, Bologna, which he is able to ascribe to definite authors. The first is the relief work on the transenna, which may be given to Antonio di Vincenzo, architect of the church, on the ground of its close similarity to the window reliefs which are shown by documents to be expressions of his designs. The work was done in the last years of the four-

teenth century and shows an individual use of the Gothic, the forms of which are given serenity and composure. The second piece is a fragment of carved woodwork decoration for stalls. It came, it seems, from Santa Maria del Carrobbio and is the work of a Modenese master, Giovanni da Baiso, in the third quarter of the fourteenth century.

Quattrocento Miniature Painters.—In *L'Arte*, XXII, 1919, pp. 121–123, L. FRATI gives some data on the miniaturists, Taddeo Crivelli, Tommaso di Cesare, Basso da Modena, Gabriele de' Cipelli, Bartolomeo Tintore, Domenico Pagliarolo, Giovanni di Biagio, Nicolò di Marescotto, and Antonio degli Arienti.

FAENZA.—Unusual Ceramics.—In *Faenza*, VII, 1919, pp. 1–4 (11 figs.), G. BALLARDINI describes some fragments of pitchers in the ceramic museum at Faenza that seem to have been used for clearing and for cooling water. Their provenance is Cairo, and their chief interest lies in the intaglio or pierced decorations in the form of geometrical designs, Arabic letters, and conventionalized animals.

FERRARA.—A Ceramic Triptych.—In *Faenza*, VII, 1919, pp. 30–32, L. F. TIBERTELLI DE PISIS describes an unusual piece of work in ceramics, a Ferrarese triptych of the sixteenth century belonging to Francesco Bertoni of Ferrara. The Madonna and two saints are the subjects, but the chief interest lies in the inscriptions, which date the work in 1589 and give the names of the hitherto unknown artist and donor.

FLORENCE.—Leonardo's Leda.—In *L'Arte*, XXIII, 1920, pp. 70–84 (4 figs.), P. D'ANCONA gives a résumé of the data thus far collected in connection with Leonardo's painting of a Leda, and publishes a new copy, a Leda in the collection of G. D'Ancona in Florence. In its small size and minute technique this picture resembles miniature work, and it is to be assigned to the middle of the sixteenth century, the work of a Flemish master of no little talent, who visited Italy and borrowed from her style. The new example only confirms the arrangement of the central group that other copies have already indicated as the one used by Leonardo; it does not contribute toward a reconstruction of Leonardo's landscape setting.

MORANO CALABRO.—Bartolomeo Vivarini.—A little known altarpiece by Bartolomeo Vivarini in the convent of S. Bernardino in Morano Calabro, signed, and dated 1477, is published by G. NOCCA in *Rass. d'Arte*, XIX, 1919, pp. 155–156 (fig.). The large piece is divided into twelve compartments, besides the predella, and has for its central subject the Virgin and Child. It offers many parallels with other works by the artist.

PERUGIA.—French Ivories.—Important mediaeval French ivories in the national gallery at Perugia are published by U. GNOLI in *Boll. Arte*, XIII, 1919, pp. 109–112 (9 figs.). The most interesting of these is a large statuette of the Virgin and Child of the thirteenth century. It finds its closest analogies in the *Vierge dorée* of Amiens and the thirteenth century angels in wood of the Martin Le Roy collection.

ROME.—A Sepulchral Gallery.—In the Via Giovanni Paisiello near the Viale Gioacchino Rossini, 6 m. below the level of the street, a sepulchral gallery was found, the walls of which are colored white and decorated roughly in red with scenes representing Jonah and the gourd, the resurrection of Lazarus, Moses striking the rock, the Paralytic, and traces of other scenes. It belongs to the cemetery of S. Pamfilo. (E. GATTI, *Nouv. Scav.* XVI, 1919, pp. 44–45).

Correggio.—In *L'Arte*, XXII, 1919, pp. 230–231 (fig.), A. VENTURI publishes a painting which, in spite of its poor state of preservation, may be assigned to the early activity of Correggio. It is in the collection of Franco Moroli, Rome, and was probably painted for Modena. The subject is the Madonna, S. Gemignano, and angels.

TURIN.—**Tintoretto's Trinity.**—In *L'Arte*, XXII, 1919, pp. 223–225 (fig.), M. PITTALUGA concludes from a study of the Trinity by Tintoretto in the picture gallery of Turin that it is the picture which was painted about 1570 for the church of S. Gerolamo, Venice, and that it has been reduced in size,—whether by fire or other accident is not known,—which accounts for the lack of the figures of three saints that formed part of the original composition.

VOLTERRA.—**Frescoes in the Palazzo dei Priori.**—Documentary proof for the hitherto uncertain attribution to Jacopo Orcagna and Niccolò di Pietro of the frescoes in the council chamber of the Palazzo dei Priori is given by M. BATISTINI in *L'Arte*, XXII, 1919, pp. 228–229. The work was done in 1383.

A Painting in San Michele.—In *L'Arte*, XXIII, 1920, pp. 24–26, M. BATISTINI contributes toward the solution of the authorship of the painting called “La Madonna del collo lungo” in the church of S. Michele, Volterra. The work is plainly that of a Florentine, and, though there is no satisfactory comparative material by Stefano di Antonio di Vanni da Firenze, documentary notice that he was working for the church of S. Michele at the time of this painting seems sufficient to indicate him as its author.

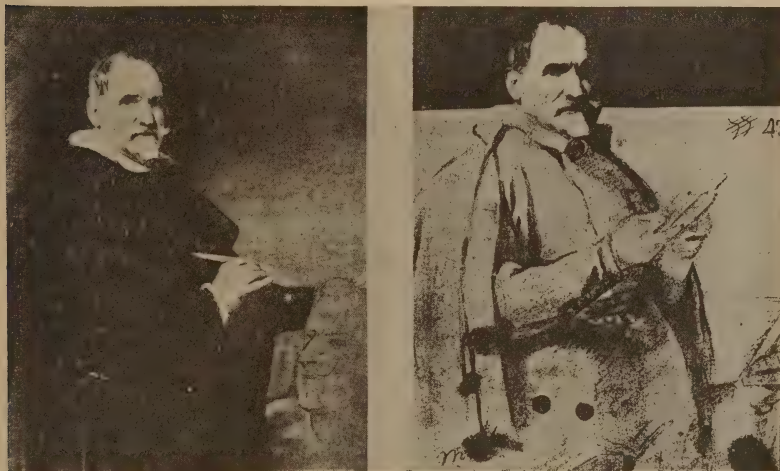


FIGURE 4.—PORTRAIT OF MARTINEZ MONTAÑÉS: PAINTING AND DRAWING BY VELASQUEZ.

SPAIN

MADRID.—**A Drawing by Velasquez.**—In *B. Soc. Esp.* XXVII, 1919, pp. 225–237 (2 pls.) the Marqués de CASA TORRES publishes a study of Velasquez's portrait of the sculptor Martinez Montañés in the Prado in connection with a somewhat mutilated drawing in the writer's collection (Fig. 4), which leads to

the conjectures that the Prado portrait presents today quite a different composition from that which Velasquez originally gave it, that Velasquez changed it a great deal some time after his first painting, and that its original arrangement was close to that of the drawing referred to. Hence, the drawing is thought to be a study by Velasquez for the portrait.

Two Spanish Paintings.—In *B. Soc. Esp.* XXVIII, 1920, pp. 24–31 (2 pls.) E. TORMO publishes two seventeenth century paintings of the Annunciation. One, representing simply the Virgin and the Annunciating Angel, is signed by Juan Carreño and dated 1653; it shows strong influence of Rubens. The other, a large Italianized work with many figures, is neither signed nor dated but is shown by documents to be the work of Claudio Coello in the year 1663. Both paintings are in Madrid; the first in the hospital of V. O. T. de S. Francisco; the second in S. Plácido.

OCAÑA.—San Pedro.—In *B. Soc. Esp.* XXVIII, 1920, pp. 32–38, the Conde de CEDILLO gives the history of the church of San Pedro, Ocaña. Besides its interest as an example of fifteenth century architecture, the church is a veritable museum of funerary sculpture of the fifteenth and early sixteenth centuries.

FRANCE

MARSEILLES.—An Unknown Masterpiece by Rembrandt.—In *Burl. Mag.* XXXVI, 1920, p. 208 (pl.) A. BREDIUS publishes what he considers Rembrandt's original portrait of a Man Reading a Book, copies of which are in the collections of the late Mr. Johnson at Philadelphia, Sir Frederick Cook at Richmond, the Comte de Bésenval, and the Comte de Demandolx Dedons at Marseilles. The last is the owner of the original, here published. It is signed, and dated 1643.

PARIS.—The Kiss of Judas on a Byzantine Gem.—In *B. Soc. Ant. Fr.* 1918, pp. 189–194 (fig.) E. BABELON publishes a Byzantine gem recently acquired by the Cabinet des Medailles upon which is engraved the Kiss of Judas. Christ stands in the centre, and in front of Him Judas about to kiss Him. Behind Christ is a small kneeling figure kissing His garment. On both sides are soldiers, thirteen in all, and above the inscription ΗΙΗΑΡΑ , *i.e.* $\eta \text{ παράδοσις}$. The gem is an ovoid 15 by 12 mm. It is remarkable for the large number of figures in the composition, but the execution is mediocre. It is probably to be dated in the ninth century. The absence of priests, the presence of the kneeling figure, and the lances of the soldiers are unique features.

A Medallion by Germain Pilon.—In *Gaz. B.-A.* I, 1920, pp. 166–172 (pl.; 5 figs.), J. BABELON publishes one of the finest of sixteenth century medallions, recently presented to the Bibliothèque Nationale. The subject is the chancellor René de Birague at the age of seventy, that is, in 1576, and the artist is Germain Pilon. Other portraits of the chancellor are discussed.

Bust by Mino da Fiesole.—Among the war-time additions to the Louvre described by P. JAMOT in *Burl. Mag.* XXXVI, 1920, pp. 287–293 (2 pls.), is the signed and dated bronze bust of Diotisalvi Neroni by Mino da Fiesole, 1464, in which the sculptor has risen far above his usual facility, approaching the power of Donatello. The bust was formerly the principal piece in the Gustave Dreyfus collection.

A Portrait by El Greco.—In *L'Arte*, XXIII, 1920, pp. 76–77 (fig.), L. VENTURI publishes a hitherto unnoticed head of an old man by El Greco, which

recently came into the collection of the Baron Michele Lazzaroni. The work belongs to El Greco's second Italian period, 1571-76.

Rembrandt Drawings.—An album of ninety drawings by Rembrandt, presented by M. Léon Bonnat to the Louvre, forms the basis of L. DEMONTS' study in *Gaz. B.-A.* I, 1920, pp. 1-20 (pl.; 16 figs.) of the authenticity and chronological order of a number of drawings.

Stained Glass.—In his account of the recent exhibition in the Petit-Palais of glass and paintings from Paris churches, P. BIVER (*Gaz. B.-A.* I, 1920, pp. 21-42; 9 figs.) calls attention to some representative works of Parisian stained glass ateliers of the middle of the fifteenth century and later, and to some paintings of the seventeenth and eighteenth centuries.

HOLLAND

HAARLEM.—Some Italian Wooden Sculpture.—A collection of thirteenth and fourteenth century Italian sculpture in wood in the Van Stolk Museum is published by R. VAN MARLE in *Rass. d'Arte*, XIX, 1919, pp. 203-209 (11 figs.). The finest pieces are four life-size figures which together form a Descent from the Cross. The mixture in these of Byzantine tradition with awakening Italian life and feeling suggests that their sculptor was a contemporary and compatriot of Cimabue.

GERMANY

MUNICH.—A Drawing by Dürer.—A hitherto unnoticed authentic drawing by Dürer, bearing his monogram, is published by E. SCHILLING in *Jb. Preuss. Kunsts.* XLI, 1920, pp. 25-31 (pl.; 2 figs.). The drawing is in the print collection at Munich and represents the Deposition from the Cross. It is similar in composition to the painting of this subject in the Germanic Museum, Nürnberg.

GREAT BRITAIN

LONDON.—A Fourteenth Century Stained Glass Panel.—In *Burl. Mag.* XXXVI, 1920, pp. 104-110 (pl.) B. RACKHAM publishes a stained glass panel presented by Mr. J. P. Morgan, Jr., to the Victoria and Albert Museum. It is found to belong to the same series as ten panels now in the Bavarian National Museum at Munich and to have come from the Abbey of Seligenthal, near Landshut. The subject is Agnes of Silesia, duchess of Bavaria.

Cornelius de Baellieur.—A painting of the Interior of a Picture Gallery by Cornelius de Baellieur lately acquired by Bromhead and Cutts and published by F. M. KELLY in *Burl. Mag.* XXXVI, 1920, pp. 293-299 (pl.), reopens the question of the authorship of a canvas in the National Gallery with a similar subject which has been attributed to Hans Jordaens (*Ibid.* XIV, 1909, pp. 236-239).

El Greco.—A painting of El Greco's last period (1604-1614), the Agony in the Garden, which has recently been acquired by the National Gallery, is published by W. G. CONSTABLE in *Burl. Mag.* XXXVI, 1920, pp. 142-145 (pl.). The painting was originally in the Convent of the Salesas Nuevas of Madrid and is one of several versions of the same subject.

An English Alabaster Altarpiece.—In *Burl. Mag.* XXXVI, 1920, pp. 53-65 (2 pls.; fig.) E. MACLAGAN publishes a late fifteenth century English alabaster altarpiece recently acquired by the Victoria and Albert Museum, one of the few complete examples extant. A list of other examples of these sculptured "tables" is also given. They are chiefly the work of sculptors of Nottingham in the neighborhood of the Chellaston and Tutbury quarries, in the fifteenth century.

UNITED STATES

BOSTON.—**Portrait by Corneille de Lyon.**—A portrait of Françoise de Longwy by Corneille de Lyon, recently acquired by the Museum of Fine Arts, is published by C. H. H. in *B. Mus. F. A.* XVII, 1919, pp. 64-65 (fig.). The portrait was probably painted about 1540 or 1542.

A Panel by Antonio Veneziano.—A panel in the Boston Museum of Fine Arts representing the Virgin and Child which formerly passed as the work of Spinello Aretino is attributed by R. OFFNER in *Art in America*, VIII, 1920, pp. 99-103 (pl.) to Antonio Veneziano, with the approximate date of 1376.

A Portrait Engraving of the Fifteenth Century.—In *B. Mus. F. A.* XVIII, 1920, pp. 29-30 (fig.), H. P. R. publishes a portrait of the artist and his wife by Israhel van Meckenem, recently acquired by the Museum of Fine Arts. It is the earliest engraved representation of a Master in the graphic arts and, with one possible exception, the only engraved portrait of the fifteenth century.

Fiorenzo di Lorenzo.—A splendidly preserved tempera painting by Fiorenzo di Lorenzo of the Madonna and Child with St. Jerome, a recent gift to the Museum of Fine Arts, is published by C. H. H. in *B. Mus. F. A.* XVIII, 1920, pp. 26-27. Besides its high quality and excellent state of preservation, it is notable as presenting much larger figures than usual with this artist, while less stress is laid on the landscape.

CLEVELAND.—**A Persian Bowl.**—In *B. Cleve. Mus.* VII, 1920, pp. 6-7 (3 figs.), J. A. M. publishes a ninth century Persian bowl from Rhages, which closely resembles Chinese pottery of the Tang dynasty. This likeness is explained by pieces of Chinese pottery found at Rhages, which were used by Persian potters as models. (See also G. B. L., *Faenza*, VII, 1919, pp. 78-79; fig.)

MINNEAPOLIS.—**Accessions to the Institute of Arts.**—Among recent accessions to the Minneapolis Institute of Arts are a painting of the City of Venice adoring the Virgin and Child, by Paolo Veronese, a fifteenth century German statue of St. Catherine in wood, and four examples of English wood carving, the figure of a bishop, fifteenth century, an Elizabethan chest, a seventeenth century statuette of Anselm, and a seventeenth century octagonal table elaborately decorated with human figures in relief and conventional designs. (*B. Minn. Inst.* IX, 1920, pp. 9-11, 17-19, and 33-38; 8 figs.)

NEW YORK.—**A Saint Veronica Tapestry.**—A Flemish tapestry in the collection of George and Florence Blumenthal, which has as its subject St. Veronica, is published by S. RUBENSTEIN in *Art in America*, VIII, 1920, pp. 145-147 (pl.). Besides its high artistic value, the panel is interesting as reproducing almost exactly a figure in one of the six tapestries of "The Foundations of Rome" in the Royal collection of Spain, and it is probably to be attributed to the same artist, Bernard Van Orley.

Flemish Tapestries.—In *B. Metr. Mus.* XV, 1920, pp., 3-7 (3 figs.), J. B. publishes two large Flemish tapestries, which formed part of a set representing the twelve months; the two recently acquired by the Metropolitan Museum represent August and October. The designs are attributed to Van Orley and presumably the tapestries were woven in Brussels about 1525.

Ivories in the Morgan Collection.—A brief review of the pre-Gothic ivories in the Morgan collection of the Metropolitan Museum is given by J. B. in *B. Metr. Mus.* XV, 1920, pp. 12-17. Among the examples described are the "ivory tower" with figures of the apostles, attributed to a Syrian artist of the sixth century, the consular diptych of Justinianus, Byzantine plaques and caskets, Carolingian bookcovers, and some Romanesque plaques, boxes, etc.

Prints by Dürer.—The Metropolitan Museum has recently acquired a set of prints by Dürer in which every authentic plate of the master is represented by at least one fine impression. The collection was made by Junius Spencer Morgan. (W. M. I., Jr., *B. Metr. Mus.* XV, 1920, pp. 33-34.)

Prints of Ornaments.—The Metropolitan Museum has recently acquired a number of prints of ornaments and books of unusual interest. They include fifteenth, sixteenth, and seventeenth century designs for jewelry, silverware, and other metalwork. (W. M. I., Jr., *B. Metr. Mus.* XV, 1920, pp. 53-58; 6 figs.)

Geoffroy Tory.—In *B. Metr. Mus.* XV, 1920, pp. 79-86 (4 figs.), W. M. I., Jr. describes the thirteen splendid woodcuts in the Parisian book of hours, dated 1545, the acquisition of which brings to the Metropolitan Museum its first representation of the work of Geoffrey Tory.

POUGHKEEPSIE.—**Etchings by Rembrandt.**—In *Art in America*, VIII, 1920, pp. 123-129 (pl.) O. S. TONKS describes a collection of etchings recently presented to Vassar College. Among these are some good examples of the work of Rembrandt, notably the portrait of Jan Six, Burgomaster of Amsterdam.

PROVIDENCE.—**A Persian Grave Monument.**—A Persian monument of special interest in that it gives the date of the work and the name of the artist has recently been acquired by the Rhode Island School of Design and is published by L. E. ROWE in the *Bulletin*, VIII, 1920, pp. 4-7 (fig.). The artist, Oustad Ahmed Vehen Achmeh, was an Arab and made this monument of Abul-ghassem in 1375.

TOLEDO.—**A Painting by Van Dyck.**—In *Art in America*, VIII, 1920, pp. 77-78 (pl.) B. M. GODWIN publishes a painting by Van Dyck lately presented to the United States and housed in the Toledo Museum of Art. The picture, the subject of which is St. Martin sharing his mantle with the beggar, is a preliminary sketch for the large altarpiece in the church of Sanvithem, between Brussels and Louvain.

WORCESTER.—**Acquisitions of the Art Museum.**—Among recent accessions to the Worcester Art Museum are a number of important paintings: two Madonnas, one from the school of Filippo Lippi, the other by Bernardino da Conti; an Adoration of the Magi, which originally probably formed part of a predella to a large altarpiece and which is attributed by Sirén to Michele Giambono about 1450; a Crucifixion, probably by Spinello Aretino; and a St. Bartholomew, an early Spanish painting, the exact date and provenance of which have not been determined. Among the interesting works of sculpture are a marble head of David (?) attributed to Bernini, and four alabaster plaques with

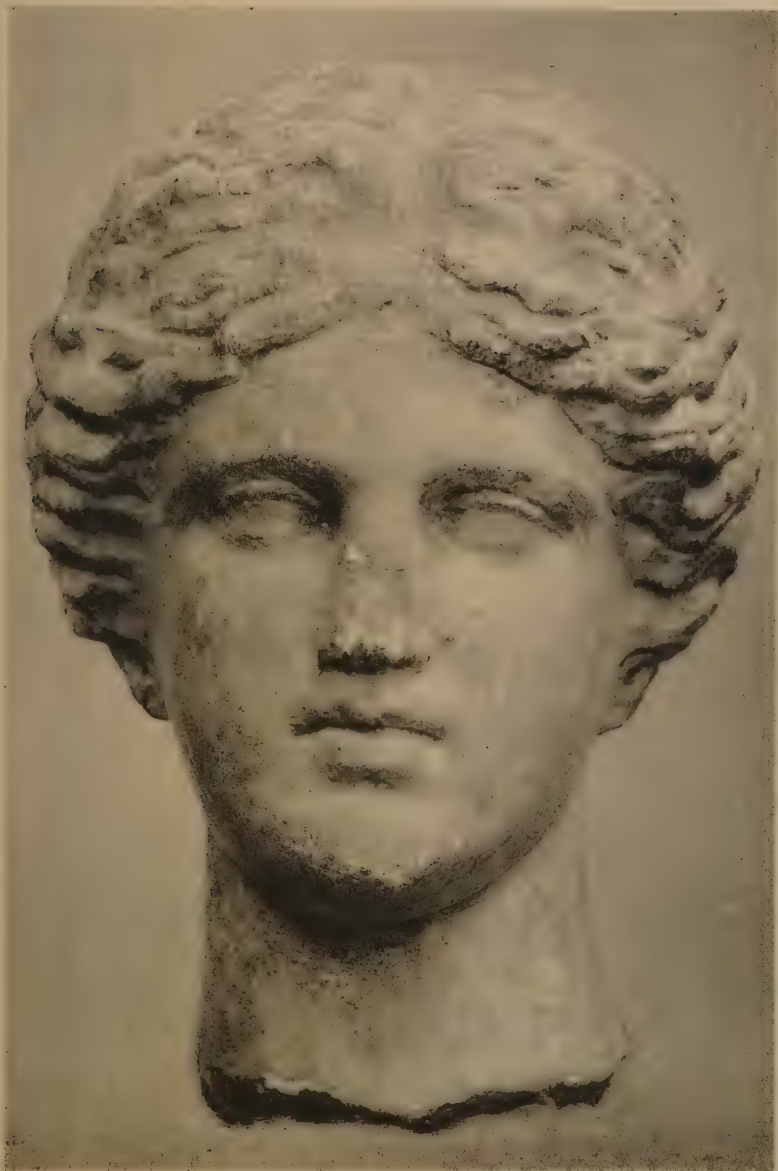
statuettes, of French origin, which once formed parts of two carved tombs now in the Victoria and Albert Museum. (R. W., *B. Worc. Mus.* X, 1919, pp. 65-73; 4 figs.; XI, 1920, pp. 2-5 and 7-15; 7 figs.)

AMERICAN ARCHAEOLOGY

GENERAL AND MISCELLANEOUS

PARIS.—**Acquisition of Mexican Manuscripts.**—The Bibliothèque Nationale has recently received from the Countess of Charencey about twenty manuscripts in different ancient languages of Mexico and Central America. They were formerly in the collections of Brasseur de Bourbourg and Alphonse Pinart, and are of great philological value. (*C. R. Acad. Insc.* 1919, p. 293.)

TORONTO.—**Acquisitions of the Ontario Provincial Museum.**—In the *Thirty-first Annual Archaeological Report* of the Ontario Provincial Museum, 1919, pp. 101-120 (20 figs.) C. B. ORR records the acquisitions of the Museum for the past year, comprising pipes, various objects of stone, etc.



HEAD FROM RHODES: FRONT VIEW.



HEAD FROM RHODES: PROFILE.

A MARBLE HEAD FROM RHODES

[PLATES II-III]

APOLLONIUS, the celebrated scholar and poet of Rhodes, describes here and there in his *Argonautica* specific works of art with such clarity and precision that some of the descriptions have been interpreted as referring to certain extant monuments.¹ In the first book of the epic the heroes are brought, on their adventure in the Argo, to the shores of the Lemnian Isle. There Hypsipyle, Queen of Lemnos, and her maidens, who had wearied of their manless state, determined in public assembly to receive the men of the Argo and repopulate their land. So the Queen's messenger was sent to summon Jason to the palace and he, responsive to the call, girded himself appropriately for the royal visit. Especially beautiful was the cloak he donned, on which were embroidered many notable scenes.² And on it, too, "was wrought deep-tressed Cytherea bearing the swift shield of Ares; and from her shoulder to the left elbow the fastening of her chiton was loosed beneath the breast; and opposite in the bronze shield her image appeared clear to the view to behold."³ A well-known statue of Aphrodite, in the Museum of Naples, found at Capua, has been associated with these words of the Rhodian poet, and the suggestion has been plausibly entertained that Apollonius is referring to the prototype of a series of works, of which the Aphrodite from Capua most nearly reproduces the original, but which with certain stylistic modifications includes also the Aphrodite from Arles in the Louvre and the Aphrodite from Melos.⁴ Therefore the head of a goddess of this type, found in the island of Rhodes itself, is an object of peculiar artistic interest, which is not les-

¹ H. de la Ville de Mirmont, *Apollonios de Rhodes et Virgile*, pp. 453 and 614. Compare Bernoulli, *Aphrodite*, p. 22.

² Apollonius Rhodius, I, 730 ff.

³ *Ibid.* I, 742-746.

⁴ Furtwängler-Sellers, *Masterpieces of Greek Sculpture*, p. 387. The three statues are well shown for illustrative comparison in Brunn-Bruckmann, *Denkmäler Griechischer und Römischer Sculptur*, plates 296, 297 and 298.

sened by the intrinsic beauty of the sculpture which it is the purpose of the present paper to discuss.

This head, which is illustrated on Plates II and III, was acquired by me some years ago in Rhodes, and there is no reason to doubt the vendor's word that it was found in the island. It is about two-thirds life-size, having a total height from chin to crown of 140 mm. and a width of 121 mm. measured at the widest point, between the outer fringes of the hair above the ears. The material is a marble of fine crystals, evidently Parian, of which the surface is now entirely covered by a beautiful golden patina. The head is well preserved except for a slight but sad injury to the end of the nose. The shape is pronouncedly round, with a cephalic index of 83.¹ The hair, which is divided by a broad parting on top, and bound by a narrow fillet in front, is combed low on either temple with a resultant triangular shape imparted to the brow. In fact the hair is brought unusually low upon the face and consequently the elevation of the forehead is small. The bridge of the nose is broad and firm and serves to accentuate the characteristically delicate treatment of the eyes. Too much attention can hardly be devoted to the artist's method of rendering the eye, as the eye, especially when considered with the mouth, is the touchstone of our sculptor's style. At right angles to the nasal bone the eyebrow extends in a straight line until the outer end of the eye is passed when it slightly droops above the swelling muscle of the lid. The eyes themselves are narrowed by the drawing together of the eyelids, perhaps to indicate concentration of gaze. The upper lid is marked by an emphatic extension beyond the junction with the lower at its outer end, and at the inner commissure the tear duct is carefully modeled. The lower lid is noticeable for its gracefully rounded contour which gives gentle transition from ball to lid and from lid to cheek. Extraordinarily applicable to these eyes is the description of the Petworth Aphrodite by Furtwängler, in his *Masterpieces*, to the following effect:² "The master hand is above all manifest in the surpassing beauty of the eyes, which are a veritable mirror of the soul. In this respect, too, only the Hermes of Praxiteles can stand comparison. In both we find the same rounding of the ball and the same treatment of the lids, which

¹ This figure is only approximate as the measurements in each direction must of necessity include the hair.

² Furtwängler-Sellers, *op. cit.* p. 345.

are not sharply detached from the eyeballs; the under lid is peculiarly characteristic in its exquisite delicacy, being almost imperceptibly defined against the ball and the cheek."

The distance between the eyes of the Rhodian head is broad but the nostrils are narrow and refined, with gentle modeling on either side. The full artistic appreciation of the nose is hampered by the injury it has suffered, but no great effort of the imagination is necessary for its mental restoration. It must, however, be remembered that the accidental blunting of the nose has a reciprocal effect on the appearance of the upper lip, which was made to be more or less shadowed by a longer nose. The mouth is marvelously delicate and sensitive. The lips, which are slightly parted, are forceful and living, as well as gracefully curved in every line. At their corners the use of the drill is visible but not conspicuous and especially noteworthy is the consciously harmonious transition between the lower lip and the surrounding surface of the chin.¹ The full rounded chin and the subtle modeling of the cheeks convey an impression of mature feminine beauty, which is confirmed by the noble carriage of the head upon a graceful neck.

The view of the head in profile on the left side, as shown in Figure 3B, more clearly reveals how delicately the texture of the flesh of the neck is suggested, when the casual turning of the head to the left produces illusive wrinkles in the skin. From this side, too, it is possible adequately to study the arrangement of the hair. The locks are combed sideways from the central parting, caught in place by a fillet that is bound low on the forehead and then brushed back from either cheek with sweeping strokes, to be fastened behind in a knot, from which several strands escape and falling rest upon the neck. The artist has striven to modify the monotonous effect of the lateral mass of this hair by introducing a raised curl in its midst, but in general the hair is not wrought with that delicacy of finish that characterizes the neck and the salient features of the face. The impression conveyed is that of a piece of work blocked out on large lines to be seen from a distance rather than rendered in detail for minute inspection.

Is it possible to name the Goddess whom this head portrays? For it will not be doubted that divinity is here suggested both in nobility of conception and in dignity of poise. The luxurious fulness of the cheeks, the delicate rotundity of the chin, the arched

¹ Furtwängler-Sellers, *op. cit.* p. 345.

bows of the lips, the soft appealing eyes are elements of ideal feminine beauty which are here combined sufficiently to characterize the Goddess of beauty and of love, and without fear of contradiction we may venture to assert that this is she

"Fair, and with all allurements amplified,
The all-of-gold made, laughter-loving Dame."¹

Worship of Aphrodite was not popularly cultivated in the island of Rhodes, as far as available records inform us of Rhodian religion. Athena of the Lindians was, of course, the great Goddess of Rhodes, of invincible power and of world-wide fame,² but nevertheless priests of Aphrodite are named in several inscriptions³ and reference is frequently made to the Aphrodite brotherhoods, the *ἀφροδισιασταί*.⁴ Furthermore it will be recalled that the entire vicinage of Rhodes is redolent with the fragrance of incense burned in homage to the Goddess of Love, in nearby Cyprus, on the east, honoring the Paphian Queen, or westward at Cnidus before the all-glorious statue of Aphrodite of the Fair Winds. Moreover in Rhodes itself one of the most beautiful vases found in the excavations at Camirus is decorated with an exquisite painting of Aphrodite riding on a swan.⁵ One cannot doubt that sculptors of the Rhodian School made many statues of Aphrodite and it would not be strange if some of them had been dedicated in Rhodes.

Further evidence in support of the identification of our head and in determination of its stylistic affiliations must now be sought in the study of its artistic qualities in comparison with related works.

In the Imperial Kunsthistorisches Museum of Vienna is a well-preserved marble head which was purchased in Tralles, and added to the Museum collection of antiquities in 1871.⁶ It was published in 1880, with two unsatisfactory plates, by Otto Benndorf in the *Archaeologisch-epigraphische Mitteilungen aus*

¹ Chapman, *Translation of the Homeric Hymn to Aphrodite*, ll. 109-110.

² H. Van Gelder, *Geschichte der alten Rhodier*, pp. 313 ff. Ch. Blinkenberg, *L'image d'Athèna Lindia*, *passim*. C. Torr, *Rhodes in Ancient Times*, pp. 74 f.

³ I.G. XII, fasc. 1, 705, 736, and according to a plausible restoration in 786.

⁴ Van Gelder, *op. cit.* p. 337.

⁵ Salzmann, *Nécropole de Camiros*, pl. 60. C. H. Smith, *Catalogue of the Greek and Etruscan Vases in the British Museum*, III, D 2, p. 389.

⁶ *Übersicht der kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses*, p. 84.

Oesterreich.¹ It is shown in Figure 1 in full-face view on the left for purposes of comparison with the front view of the Rhodian head on the right.² The heads offer many noticeable similarities. Their shape is round, the face oval, the parting in the hair deep and broad; in front a single fillet binds the hair, which is brushed low on the forehead, and back on each side to conceal the upper part of the ear. In each case the bridge of the nose

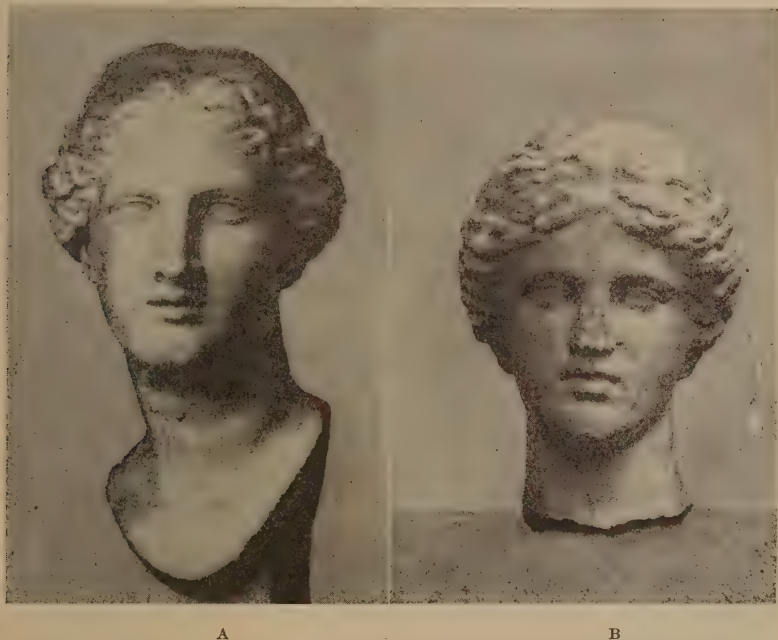


FIGURE 1.—A: HEAD FROM TRALLES; B: HEAD FROM RHODES.

is broad, the eyebrows straight, the eyes long and narrow, and the mouth small. In the Tralles head, too, the lower eyelid and the under lip are carefully modeled so as to make a pleasantly graduated transition with the adjoining surface of the skin. Further comparison of these heads from a different point of view may be profitably made by studying the picture of the Rhodian head shown in Figure 2 by the side of the reproduction of the head from Tralles given by Lucy Mitchell on Plate XIX of her *Selec-*

¹ IV, 1880, pp. 66 ff., pls. I and II.

² Professor Young, of Columbia University, kindly provided me with the photograph from which this view of the Tralles head was made.



FIGURE 2.—HEAD FROM RHODES; THREE QUARTERS PROFILE.

tions from Ancient Sculpture. Indeed in this juxtaposition several differences are clearly in evidence, which are somewhat accentuated by the fact that the Mitchell photograph of the Tralles head was made from a plaster cast. Attention should be particularly directed to the hard line about the nostrils which does not exist on the Rhodian face, to the conspicuousness of the drill holes in the corners of the mouth, to the dimple in the chin, and

to the extent to which the ear is revealed by the treatment of the side hair.

Benndorf, in concluding his study of this Aphrodite head from Tralles, states¹ that in view of the outline of its profile, the accentuation of the nasal bone, the small height of the nostrils, the small mouth, the short upper lip and the dimple in the chin, it must be assigned to the same time and school which produced the Hermes of Olympia. With this opinion, too, Furtwängler in general concurs when, in the *Masterpieces*, he declares his belief that "its artist evidently imitated Praxiteles, from whom he may have been separated only by a generation or two."² In order to emphasize this relationship Lucy Mitchell³ places the head from Tralles by the side of a small marble head, found at Olympia, whose Praxitelean resemblances are energetically reiterated by Professor Treu in the third volume of the Olympia publication.⁴ Treu does not hesitate to suggest the possibility that the Olympia head is from the very hand of the master, and compares it to no disadvantage with another head from Tralles, the so-called von Kaufmann copy of the Cnidian Aphrodite.⁵ A characteristic feature of the head from Olympia is the treatment of the hair, which is left apparently in a rough, unfinished state, its finer details being suggested but not completed. This observation is also strikingly true of the Hermes of Olympia, the casual finish of whose hair is a studied means of producing beauty of effect.

The front view of the Rhodian head, when placed beside the Cnidian Aphrodite shows even more marked resemblances than were apparent in the comparison of the Olympia and the von Kaufmann heads. Particularly noticeable is the similar treatment of the eyebrows and eyes, the bridge of the nose, the sensitive nostrils, the small mouth and rounded chin. The contour of the face is almost identical, except on the forehead, which is made much lower on the Rhodian head because the hair is brought unusually far forward.

With these Praxitelean features of our head firmly established, it is now in order to study the Rhodian head comparatively in its relation to a work to which it exhibits the greatest affinity,

¹ *Op. cit.* p. 72.

² Furtwängler-Sellers, *op. cit.* p. 398.

³ *Selections from Ancient Sculpture*, pl. XIX. Compare her *History of Ancient Sculpture*, p. 599.

⁴ *Olympia*, Text, III, p. 206; Tafel LIV, Nos. 1 and 2.

⁵ *Olympia*, Text, III, p. 206.

the Aphrodite of Melos (Fig. 3). It is well known that the statue of the Melian Aphrodite is somewhat larger than life-size, the actual height being 2.038 meters. It is thus a little less than one-third larger than life. As has already been noted the Rhodian head is about one-third smaller than life, and indeed in its essential proportions it is just one-half the size of Aphrodite's head. This statement will be sufficiently substantiated by the citation of two measurements: the width of the neck of the Rhodian goddess is 65 mm., of the Aphrodite of Melos 130 mm.; the distance from the root of the nose to the furthest limit of the back hair is 145 mm. on the Rhodian head, 290 mm. on the Aphrodite of Melos. To be sure all the dimensions do not proportionately coincide with this degree of exactitude, but the only serious divergence occurs in the case of those measurements which are taken from the roots of the hair above the center of the forehead, for, as has been emphasized before, the hair of the Rhodian head is represented as growing disproportionately low upon the brow.¹

Apart, then, from the dissimilar shape of the triangulated foreheads the faces are seen to be very like if the view of the Rhodian head shown in Figure 2 is placed beside a three-quarter profile of the Aphrodite, such as that given by Mitchell on Plate XVIII. In this comparison the similarity is evident in the structure of the bridge of the nose and the eye complex. The characteristic eyebrows are identical in shape, and the upper lid of the eye extends peculiarly beyond the lower at the outer end. It must be remembered that the nose of the Aphrodite is restored and that some little restoration has also been wrought on the lips.² A hard

¹ Measurements of the Rhodian head compared with those made from a cast of the head of the Aphrodite of Melos are as follows:

	Rhodian Head	Aphrodite		Rhodian Head	Aphrodite
Chin to crown.....	140 mm.	273 mm.	Outer corner of eye to lobe of ear.....	57 mm.	112 mm.
Greatest width.....	121 "	245 "	Chin to mouth.....	30 "	57 "
Ear to ear.....	72 "	149 "	Root of hair to root of nose.....	26 "	66 "
Chin to roots of hair... 95 "	210 "		Root of hair to nostrils	57 "	133 "
Chin to root of nose... 73 "	148 "		Root of hair to inner corner of eye.....	38 "	85 "
Chin to inner corner of eye.....	61 "	129 "	Root of hair to mouth	67 "	155 "
Chin to outer corner of eye.....	64 "	138 "	Distance between inner ends of eyes.....	17 "	35 "
Thickness of neck... 65 "	130 "		Distance between outer ends of eyes.....	48 "	93 "
Corner of mouth to outer corner of eye... 37 "	76 "				
Corner of mouth to lobe of ear.....	53 "	103 "			

² Ravaisson, *La Vénus de Milo*, p. 65.



FIGURE 3.—A: HEAD OF APHRODITE OF MELOS; B: HEAD FROM RHODES.

line about the nostrils is visible here, like that noted on the head from Tralles, and the drill marks in the corners of the mouth are more noticeable than on the Rhodian example, but the contour of the chin in each case, and its modeling, show a remarkable resemblance. In the manipulation of the hair, as seen in the side view of the head in Figure 3B, the general principle of arrangement is the same, though differences in the treatment of details may be observed. The chief difference, however, is a difference of technique rather than of style, the hair of the Melian head being carefully executed and fully finished in all its details, while on the head from Rhodes the hair is handled in a very sketchy manner, without much regard for accurate articulation of the several locks. On the other hand, there is extraordinary accord between the two heads in an unusual feature of hair arrangement. The side hair on each head is brushed back over the ear to a knot behind, where it is fastened, and from this fastening three strands of hair fall down on the back neck. This characteristic manner of head-dress, together with uniformity of conception and similitude of execution, marks the two heads as very closely related. Can the nature of this relationship be more precisely determined?

Benndorf, in his study of the head from Tralles, considers that its interpretation must rest on one of two hypotheses; either it

is a free copy of the Aphrodite of Melos, or else both works go back to a common original.¹ He decides in favor of the latter alternative and assigns this supposititious original to the school, if not to the hand, of Praxiteles. Furtwängler, however, while accepting the Praxitelean character of the head thinks that it has "only quite general traits in common with the Melian statue."² Now the Rhodian head, in comparison with the Melian, does not exhibit the characteristics that might be expected to be apparent in a reduced copy. The features are too delicately and too finely finished, and the mouth, in particular, shows an evident refinement of the lines of the Aphrodite. The hair of the Rhodian head, on the contrary, is left in a comparatively rough state, apparently for purposes of contrast with the finished fineness of the features. Such a device is a familiar characteristic of Praxitelean style and has been noticed as a frequent phenomenon on heads associated with Praxiteles and his school.³ That there is, however, a distinct relationship between the Melian and the Rhodian works has been abundantly proved, and while it is hazardous to make categorical assertions about an isolated head the possibility suggested by its discovery in Rhodes cannot be avoided. It may reasonably be an independent copy, made in the fourth or third century B.C., of the prototype of the Aphrodite of Melos, which may have been dedicated in Rhodes, and there have been a familiar sight to the poet Apollonius, who takes particular pains to describe it.

But whatever view may be taken of the affiliations of our Aphrodite in the sequence of style, or whatever may be thought of her artistic valuation, the intrinsic beauty of the Rhodian head is indisputable, and we may enthusiastically apply to it the restrained words of the Greek anthologist, referring to another head in another place:⁴ "τῆλοθεν ἐκ νήσοιο Ῥόδου τέχνασμα ποθεινόν," a desirable work from the far-distant island of Rhodes.

THEODORE LESLIE SHEAR.

COLUMBIA UNIVERSITY.

¹ *Op. cit.* p. 70.

² *Masterpieces*, p. 398.

³ In addition to the heads already mentioned there should be compared in this connection the "Aberdeen" head in the British Museum, well shown in *Masterpieces*, pl. XVIII, and the head of a goddess in Berlin found at Pergamon, Bulle, *Der schoene Mensch*, pl. 258.

⁴ *Anth. Pal.* Ápp. I, 317; cited by Van Gelder, *op. cit.* p. 408.

PRIMITIVE AEGEAN ROOFS

It is a refreshing commentary on the energy and ingenuity of the human mind,—and also perhaps upon its inconclusiveness,—that after the long series of attempts to reconstruct the primitive Doric frieze, it should still be possible to advance a new, or at least a novel, restoration. Such a restoration, quite different from anything proposed in modern times, was recently presented by Professor Washburn¹ in this JOURNAL. The subject can hardly be definitely settled until every possible restoration shall have been presented, but in the meantime it is worth while giving careful criticism to all that are suggested, to determine which seem within the limits of probability. I, therefore, desire to point out certain respects in which Washburn's premises and conclusions appear to me to be unsound.

The kernel of his new theory is that the *metopes* of the Doric frieze, in stone architecture, represent the ends of horizontal beams used in an earlier flat-roof architecture of wood and clay, and Washburn prefaces his reconstruction with the statement that "it will not be possible to settle definitely the question of flat roof versus pitched roof."²

In classic times, as far back as we have any evidence, the Doric roof is known to have been a pitched roof, while the pre-Doric Mycenaean roof is generally supposed to have been flat.³ Washburn assumes that one was derived from the other and that the details of the Doric frieze were developed after Mycenaean times but before the roof began to slope.

Now as it has been apparently impossible to trace any continued development from Mycenaean to Dorian culture in the other arts,—pottery, ornament, costume, etc.,—the *a priori* assumption, quite commonly made, that there is a developmental connection between the architecture of the two civilizations is open to serious question. And unless there is a reasonable assur-

¹ A. J. A. XXIII, 1919, pp. 33-49.

² *Op. cit.* p. 42.

³ Leroux, *Les origines de l'edifice hypostyle* (*Bibl. des écoles fr. d'Athènes et de Rome*, fasc. 108) Paris, 1913, maintains that the Mycenaean megara had pitched roofs (pp. 51-70).

ance that the Doric roof was once flat, it seems rather futile to base the details of a reconstruction on that assumption.

As a matter of fact the question of the different roof-constructions of primitive architecture is by no means incapable of settlement. In most cases the plan of a building indicates very clearly the general type of roof that covered it. The roofs of the pre-hellenic Mediterranean have already been most fully and intelligently discussed by Leroux.¹ Mackenzie,² in reviewing the same ground, has arrived at somewhat different theories. Neither the one nor the other is correct in all points, but both have shown that the problem is not one to be abandoned as altogether hopeless.

If we consider primarily roof constructions in which timber is used, and exclude, therefore, beehive tombs and the like, a brief survey of known primitive architecture throughout the world shows us three distinct types. The first is that in which poles are firmly planted in the earth at their lower ends and being fastened to one another at the top in the form of a cone are supported there by mutual thrust alone. This is the type of our American Indian *tepees*. Where the space to be covered is great and the stiffness of the poles available is relatively slight, the latter are bowed upwards to prevent them from sagging under the weight of the roof covering,—thatch, felt, skins, matting, etc.,—producing a domical hut. This is the type found in American *wigwams*, in the "*kibitkas*" of the nomads of the Asiatic steppes, in the grass huts of Africa,³ and generally in primitive round houses the world over.⁴ Such a roof construction is naturally expressed by a circular plan, and conversely circular plans naturally indicate this roof construction. I know of no people who habitually cover a circular plan with a flat roof. Therefore it is quite probable that this type of roof originally covered many, if not all of the pre-historic circular foundations recently uncovered in Greece.⁵

¹ *Op. cit.*

² 'Cretan Palaces and the Aegean Civilization,' particularly Pt. IV, *B. S. A.* XIV, 1907-08, pp. 343 ff.

³ This type and the other two hereafter described are all well exemplified in Africa. Cf. Ankermann, *Anthropos*, I, 1906, pp. 581-584.

⁴ Innocent, *The Development of English Building Construction*, p. 8, describes similar conical huts built by charcoal burners in England, Sweden, France, and Germany. These are covered with brush or with sods laid face in. The sods are in some cases lapped like tiles.

⁵ At Orchomenos, Bulle, *Orchomenos*, I, pp. 19 ff.; at Eleusis, 'Αρχ. Έφ. 1898, pp. 29 ff.; Pfuhl, *Ath. Mitt.* 1905, pp. 331 ff.; Poulson, *Dipylongräber*, pp. 14 ff.

In some of the African constructions a central post is used to support the upper ends of the rafters,¹ which in such case are rigid, but this is a comparatively rare construction. So far as I know there is no evidence of a central support in any of the Greek round houses.

In its most primitive form the entrance to a round hoop-roofed house is merely a hole in the thatch with a flap of skin or felt to cover it. But before long this entrance is given a definite form by carrying the thatch of the dome out to an upright hoop



FIGURE 1.—PRIMITIVE APACHE HOUSE.

planted in front of it (Fig. 1). This vertical entrance-gable obviously gives much better protection from the weather than the sloping hole in the domical hut. But evolution did not stop there; the hoops in front of the opening were soon multiplied,—a light ridge lashed *upon* them where the poles, bent over from both sides, crossed at the top, serving to keep the hoops properly spaced,—and the house with a horseshoe shaped plan was formed.

The foundations of this shape uncovered at Olympia,² Orchomenos,³ Chalandriani,⁴ Rakhmani⁵ and Rini⁶ could hardly have had other than hoop roofs. There is no trace of any support for

¹ Ankermann, *op. cit.* A centre pole is also used in the larger huts of European charcoal burners, Innocent, *op. cit.*, p. 11.

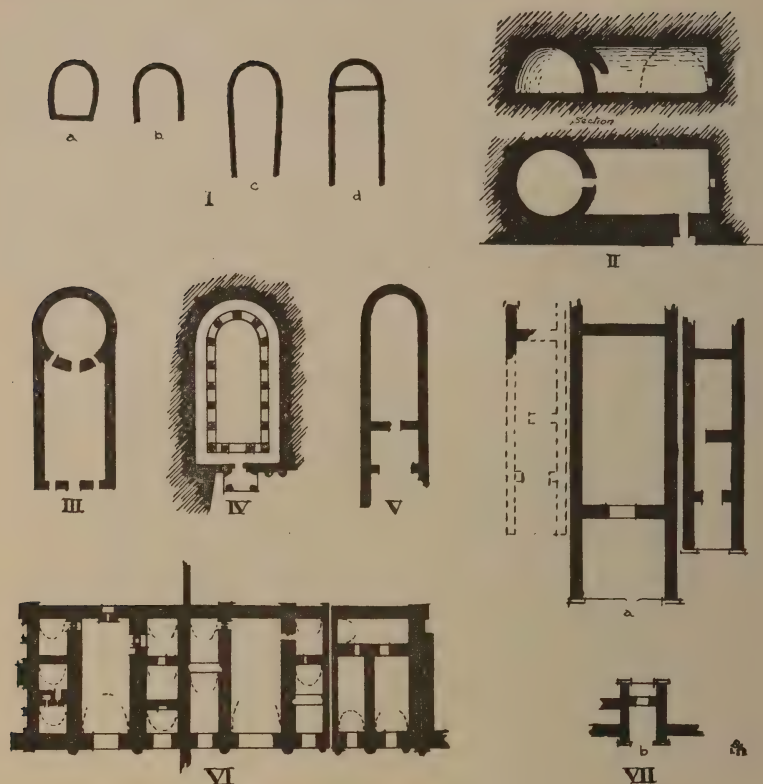
² Dorpfeld, *Ath. Mitt.* 1908, pp. 185 ff.

³ Bulle, *op. cit.* pp. 34 ff.

⁴ 'Αρχ. Έφ. 1899, pp. 118 ff.

⁵ Wace-Thompson, *Prehistoric Thessaly*, pp. 37 ff., fig. 17.

⁶ *Ibid.* pp. 132 ff., fig. 80.



Typical Hoop Roof Structures *Various Scales*

FIGURE 2.—I, HOUSE FOUNDATIONS, OLYMPIA, GREECE: II, CAVE, BEHAR, INDIA; SECTION AND PLAN: III, VILLAGE CHAITYA-HOUSE, INDIA: IV, ROCK-CUT CHAITYA (19), AJANTĀ, INDIA: V, ROCK-CUT CHAITYA, DHUMNAR, INDIA: VI, PALACE AT HATRA, MESOPOTAMIA: VII, PALACE AT TROY; A, GREAT HALLS; B, PROPYLAEUM.

a ridge-pole, the long apsidal-ended structures of Olympia lacking even a front wall (Fig. 2, I). It is not at all likely that the side walls were arched across with a masonry or brick vault.

From the horseshoe shaped plan it is only a short step to that in which the side walls are parallel. But since in the latter form the height of the roof is of course constant, it is necessary to fill in the upper part of the entrance end with some sort of a framework

to reduce the size of the opening, or else to close it with a wall in which a door is left. And there is nothing to prevent using such a wall to close both ends of the tunnel, giving an elongated rectangle in plan. This latter scheme is naturally suggested where a wall is used to close the front, but where no masonry enters into the construction, it is simpler and more efficient to carry the hoop-roof construction unbroken around a semi-circular rear end.

Hoop roof construction is admirably exemplified in the early architecture of India (Fig. 2. II, III, IV, V). It is clearly shown on the Bharhut sculptures,¹ where in some cases the ends of the houses are curved in plan and in other cases rectangular, and is accurately reproduced in stone in the rock temples of Kârlê and Ajantâ (Fig. 3).² It is not impossible that the flexibility of such a roof gave rise to the horseshoe arch of Mohammedan art³ or that the original domed hut of Mesopotamia⁴ was merely a wigwam thickly covered over with clay.⁵ And the barrel-vaulted structures of Sassanian architecture recall sharply the close relationship of the



FIGURE 3.—INTERIOR OF CHAITYA HOUSE
XXVI: AJANTÂ.

¹ Havell, *Ancient and Mediaeval Arch. of India*. pls. IV, A; IX, A.

² *Ibid.* pls. XVIII, XIX, XLVIII.

³ Cf. Rivoira, *Architettura Musulmana*, pp. 113 ff.

⁴ Layard, *Monuments of Nineveh*, 2nd ser. pl. 16. Plates 24, 36, and 50 show walled towns in which the houses have flexible domed roofs supported by central and diagonal struts, much as the ribs distend an umbrella.

⁵ In the so-called "Tombs of the Giants" in Sardinia the stone slabs which serve as façades seem to represent a hoop fastened at the lower ends and tied

Iranians and the Aryans (Fig. 2, VI).¹ But I am not at all convinced that this curvilinear construction is in any way connected with cave dwellings as Leroux suggests² or with the beehive tombs. The latter probably originated as a mound of earth or a cairn built over a grave, the coffin being later enlarged to form a chamber. This same scheme is shown in the tumuli of Etruria³ and the pyramids of Egypt, which certainly developed quite independently of the domestic architecture of the living.

In prehellenic architecture most notable examples of these long barrel roofs, like the tops of prairie wagons, must have covered the great halls of Troy II (Fig. 2, VII). Leroux⁴ points out that the narrow space which separates the lateral walls of one from another is certain indication that the roofs were not flat, but drained to both sides. Furthermore, the size of the largest hall (10 m. x 20 m.) with no trace of interior supports, would make a flat roof impossible. For the same reason a roof construction resting on a ridge pole would be impracticable without the use of trusses, which were certainly not known at that time. The only reasonable construction there is one in which the roof members were arched across to the middle from both sides, their butts being planted in the earth or thrusting against heavy and probably not very high side walls.⁵

The second type of roof is that in which flat beams are laid horizontally on the tops of vertical walls and the whole then cov-

across horizontally at mid-height to prevent undue spreading as in the English "cruck" roof construction. In reality as Mackenzie has clearly shown (*B. S. R. V*, pp. 89 ff.) these structures are developments of the megalithic dolmen, the carving of the façade stone recalling the horizontal roof of the dolmen and the facing of stone upon the mound of earth that covered it. There is no connection here with any frame construction.

¹ A distinct form of hoop roof, with the hoops—called "crucks" or "siles"—held in by tie beams, as in a truss, has even persisted until modern times in England. The "crucks" are curved but rigid and the ends of the buildings are square. (Innocent, *op. cit.*).

² *Op. cit.* pp. 19 ff.

³ Cf. Dennis, *Cities and Cemeteries of Etruria*, 2nd ed., Vol. I, p. lxi, note Q, and p. 387. The architectural decorations of Etruscan and Mycenaean tombs are only a late addition reflected from the architecture of the living.

⁴ *Op. cit.* p. 54.

⁵ The hoop-roof nave of the rock-cut Chaitya house at Kārlē has a clear span of 7.5 m. (Ferguson, *Hist. of Arch.* III, p. 117.) This is certainly an accurate copy of contemporary wooden structures, which not being rock-cut were probably somewhat larger.

ered thickly with brush and clay. The earliest habitations thus formed were probably partially or wholly excavated in the side of a hill; the roof, level with the upper ground or nearly so, serving to form an artificial cavern of the whole.¹ The plan is naturally rectangular. This is the type of structure used by the Indians of our southwest. It may easily have been originated by cliff-dwelling folk; it is not necessarily older or younger than the curvilinear, sloping roof type, for neither one seems to develop from the other, but it marks a distinct difference in the civilization employing it. The rectangular flat-roof is a permanent structure and belongs to a fixed habit of life, while the round, demountable, sloping roof bespeaks a nomadic or semi-nomadic origin (Fig. 4).²

It is evident that whereas in an oblong structure with a hoop-roof the entrance is almost necessarily at one end,³ in a flat roof structure it may be on any side. It is also evident that if such a dwelling be partially excavated, it will be easier to stretch it along rather than to drive it deep into the side of a hill. And in such cases the flat roofed house naturally has the poles which compose its roof laid from front to rear, instead of from side to side across the longer span.⁴ The hooped roof house may increase in length with ease, but great width is a very difficult matter; in the flat roof house, however, the width can be increased easily, and a single large transverse beam or girder makes it possible to double

¹ As in the winter *iglus* of the Esquimaux. It is interesting to note that the permanent winter houses of these people are rectangular with flat or "ridge pole" roofs, while the temporary summer tents are conical "tepee" structures. Cf. Murdock, *Ethnological Results of the Point Barrow Expedition*. pp. 72-78 and 83-86.

² Cf. Mackenzie, *B. S. A.* XIV, 1907-08, p. 356, and above, note 2. It might be supposed that the form of roof would be dependent on the climate or the available building materials. The existence of the hoop roof huts of the vagrant Apaches alongside of the flat roof settlements of the Pueblo Indians indicates that culture is more important than climate or materials.

³ In the Bharhut sculptures houses are shown which are oblong in plan, rounded at both ends, and with a door at the side. Similar primitive houses have been found in western Europe (Innocent, *op. cit.* p. 12). This type may be due merely to the awkwardness of a door in a curved end, or, quite possibly, is derived from two huts of horseshoe plan set face to face for mutual protection, as shown on the relief of Nineveh (Layard, *op. cit.*). This type, however, is unusual.

⁴ As in the ancient structures of Mitla, where the entrance façades are always the long sides. Cf. Holmes, *Archaeological Studies among the Ancient Cities of Mexico*; add also Fig. 4 X.

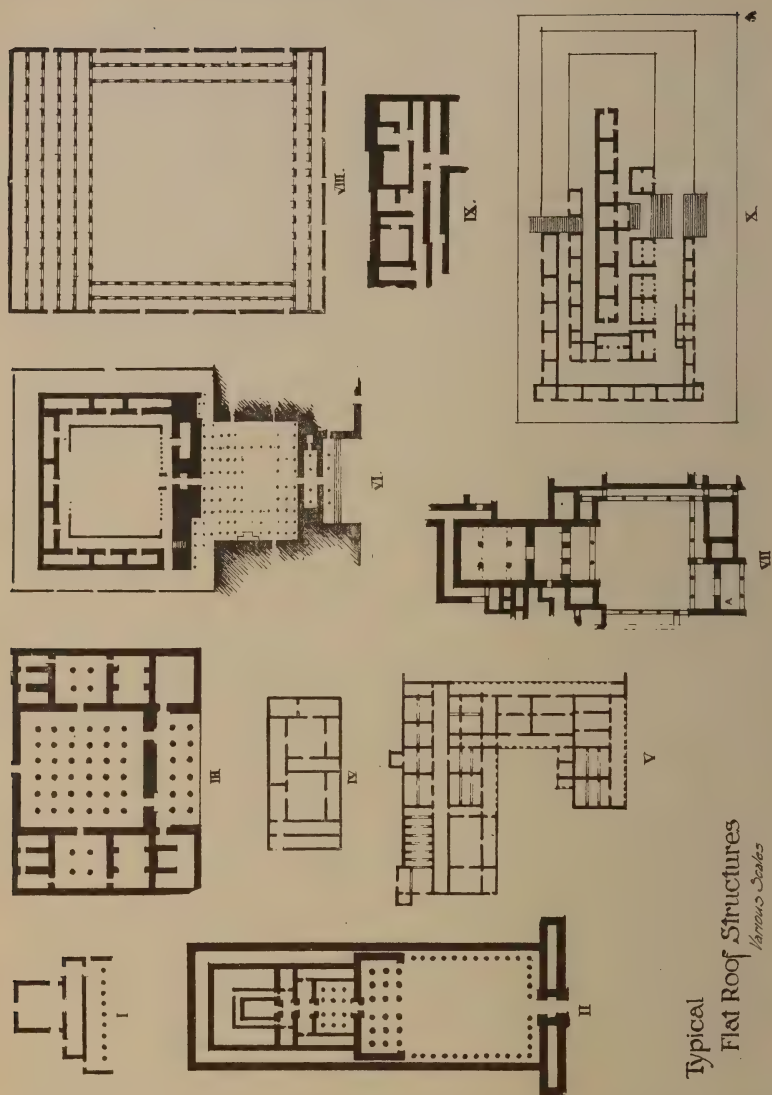


FIGURE 4.—I, HOUSE AT KAKOUN, EGYPT: II, TEMPLE AT EDFU, EGYPT: III, PALACE AT PERSEPOLIS, PERSIA: IV, HOUSE AT TIMBUCTOO, AFRICA: V, MONASTERY AT KALAT SAM'AN, SYRIA: VI, TEMPLE AT LHASA, THIBET: VII, PART OF PALACE, TIRYNS, GREECE: VIII, MOSQUE AT CAIRO, EGYPT: IX, PART OF PALACE, GHA, GREECE: X, PALACE AT SAYIL, YUCATAN, THREE TERRACES.

the depth (Fig. 5). But the greater the width, the greater the size required for the girder, or the more numerous the supports required to sustain it; consequently the flat roofed unit is normally nearly square without supports, or transversely elongated like a portico, or is a large square area formed of a series of such porticos, divided by walls or rows of columns, in which case each unit is considerably wider than deep.

The flat roofed construction is strikingly illustrated in the Cretan palaces. Even were it not that the juxtaposition of such a number of various units could hardly have had sloping roofs on account of the difficulty of draining the valleys and pockets which would be formed,¹ the characteristic plan of the units, divided

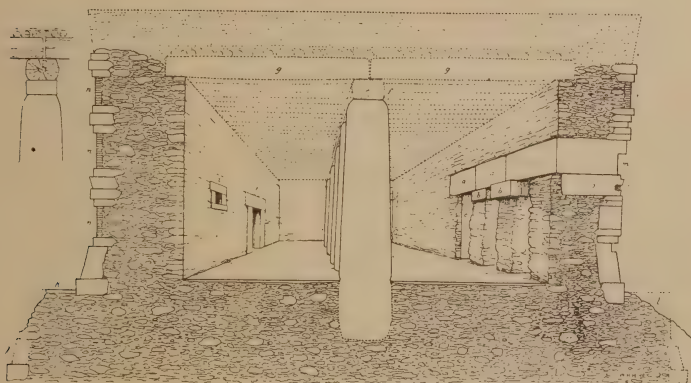


FIGURE 5.—HALL OF THE SIX COLUMNS: MITLA.

from side to side by walls or rows of columns supporting transverse girders, leaves no room for doubt whatever.² The palace of Gha³ (Fig. 4, IX) is, on a smaller scale, very similar to that of Cnossus. In both cases the main structure consists of two wings at right angles to each other. Each wing was composed in the upper story of a series of approximately square rooms of varying

¹ Leroux, *op. cit.* p. 54. Cf. Noack, *Homerische Paläste*, pp. 12 ff., fig. 8.

² The corridor-like magazines in the palace of Cnossus are, of course, only basement structures, the great halls above were evidently nearly square, and in one at least the roof was supported by a transverse beam resting on two columns, the foundations of which appear in magazines 7 and 9.

³ *B. C. H.* XVIII, 1894, pp. 271 ff., pl. XII; de Ridder claims that because no stairs were found, the palace must have been but a single story high. Cf. plan in *A. J. A.* XXIII, 1919, p. 292. There are, however, no stairs in the "pueblos" of our southwest, ladders being used for safety's sake.

sizes opening on a narrow terrace, which in the foundations is shown as a corridor. The double corridor at Gha is an indication that this palace ran up, in certain places at least, to three stories. The effect must have been very similar to our Indian pueblos, and is quite clearly shown on a silver vase from Mycenae.¹ The same arrangement is found in the small rooms against the east wall of the palace enclosure at Tiryns, in a house to the southeast of the grave-ring at Mycenae² and in the palace of the third city at Phylakopi³ in Melos.

The great halls of Tiryns and Mycenae (Fig. 4, VII), however, are quite different in type from those of Crete, as Leroux⁴ and Noack⁵ have clearly shown. In the first place they are set directly on the ground level instead of being raised upon a terrace platform of basement structures. Again the main room in Greece is considerably deeper in relation to its width than is found in Crete, and the entrance through portico and prodomos with narrow doors, is quite different from the open façades of the island palace halls. But though the plans are different, the methods of construction were undoubtedly the same. Leroux⁶ is led by the passages around the smaller *megaron* and across the back of the larger one at Tiryns, to believe that these were covered with sloping roofs, the passages serving to provide drainage space for rain-water. The *megaron* of Mycenae is similarly separated from the walls of surrounding structures, as is also that of Phylakopi. To me it seems probable that at Tiryns the two great one-storied halls were built at a later period than the smaller-roomed multi-storied structures which flank them to the east and west, and that to provide communication between the terraces of these older buildings it was necessary to carry a "chemin de ronde" at mid-height around the back of the great halls. The supposition that these passages were not for roof drainage, is strengthened by the fact that the corridor is carried across the back of the great *megaron*, where it would be quite unnecessary for drainage, while on the other hand, the constructions to the west of the great *megaron* abut directly against its wall. Leroux⁷ notices this but dismisses

¹ Tsountas and Manatt, *The Mycenaean Age*, p. 213, fig. 95.

² Schliemann, *Mycenae*, Plan B.

³ Mackenzie, *Excav. at Phylakopi*, fig. 49.

⁴ Leroux, *op. cit.* pp. 103, ff.

⁵ Noack, *Ovalhaus und Palast*, pp. 35 ff.

⁶ *Op. cit.* pp. 55 ff.

⁷ *Op. cit.* p. 56.

it as unimportant. At Phylakopi the corridor marked (2) which flanks the east wall of the *megaron* is evidently the basement of the terrace on which the upper story rooms to the east opened.¹ And the *megaron* is with little doubt a later structure built directly against the outer terrace wall of the older palace. The isolation of the *megaron* at Mycenae is also easily accounted for on the same hypothesis of later construction. So, while the narrow space (less than 1 m.) between the great halls at Troy may well indicate some sort of sloping roofs, I do not think that the corridors of twice that width in the Mycenaean architecture of Greece do so at all (cf. Fig. 2, VII and Fig. 4, VII). Aside from this the Greek plans clearly denote a flat roof construction, exactly similar to that of Crete. Though the halls as a whole are longer than they are wide, they are broken by transverse divisions—at Tiryns and Mycenae two columns bearing a cross girder, then two walls, then two more rows of two columns each,—into divisions which are roughly twice as wide as they are deep. There is no good reason to doubt that the roof structure was composed of horizontal round beams laid close together, spanning, from front to rear, the spaces between transverse walls and girders, and covered with a thick bed of brush and clay, exactly as depicted in Minoan frescos, as carved on the façade of tombs at Tiryns and Mycenae, and as reproduced in the later architecture of the Lycian tombs.²

The obvious explanation of all these resemblances and differences in plan and construction is that a thoroughly Cretan civilization was responsible for the palaces of Gha and the older terraced structures of Tiryns and Mycenae, and that men of a different race, accustomed to long *megara* opening on the ground level, and to fireplaces, gaining the ascendancy in Argolis, ordered great new palace halls to be built and decorated for them by craftsmen of the older régime.³ The plan would approximate that to which the outlanders were accustomed and which they could easily describe, the construction and decoration would remain like that of Crete.⁴ The same difference between theme and workmanship

¹ The fact that this east wing of small intercommunicating rooms has no communication with the exterior, proves that they are only basement structures, entered perhaps by a ladder from the upper story.

² Cf. Holland, *A. J. A.* XXI, 1917, pp. 120, 122, and fig. 3.

³ Cf. Mackenzie, *Phylakopi*, pp. 269–271 for similar change of cultural influence in Melos.

⁴ Compare the churches of Barletta and the Cathedrals of Aversa, Acerenza, and Venosa built in southern Italy under the direction of the Normans between

is found in other products of the period, *e.g.* the gold death-mask from Mycenae where a face with a non-Cretan beard is executed by one trained in the Minoan gold-workers' art.¹ It is not impossible that these conquerors were the "fair-haired" Achaeans, and that the halls which they remembered from another land and had reproduced by their conquered workmen, were similar to those of Troy II, perhaps with the barrel roofs. In this connection the resemblance in plan of the Mycenaean propylaea to that of Troy II should be noted; those of Greece presumably had flat roofs, while the Asiatic form, with a deep entrance and no columns between the flanking walls was probably hoop-roofed (Fig. 2, VII B; Fig. 4, VII A); the gateways of Crete are of a definitely different plan. It may be that the prototypes of the *megara* of Argolis were the crude halls of Dimini² and Sesklo,³ whose plans appear to indicate a flat roof of clay on timbers running parallel to the main axis of the building and supported in turn by transverse walls and rows of two columns each. On the other hand though these remains are of the stone-age, that period lasted to such a late date⁴ in Thessaly that the *megara* of Dimini and Sesklo are probably later than the second palace of Cnossus, and may themselves be the result of Cretan or even of Mycenaean influence. Such questions of cultural origin and influence cannot be decided with any sureness from the scanty material at hand, but what can be positively stated is that though the arrangements of the great halls are similar, the roof construction of Tiryns was quite different from that of Troy II, but was quite like that in Crete, though here the arrangements are different in plan.

There is a third type of roof construction which partakes of some of the characteristics of each of the foregoing. In this the roof slopes from the centre to either side, as in the hoop roof, but, as in the flat roof, with a median transverse girder supporting the actual roof timbers; the rafters here rest at one end upon this

1050-1200. The plans are distinctly northern French, the workmanship wholly southern Italian. Cf. Cummings, *Hist. of Arch. in Italy*, II, pp. 37-41.

¹ Schliemann, *Mycenae* (No. 474) Eng. ed. p. 289. This is the opinion of Dussaud, *Les Civilisations préhelléniques*, pp. 283-284.

² Tsountas, *Προϊστορ. ἀκροπόλεις*, p. 50, fig. 9. Wace-Thompson, *op. cit.* pp. 79 ff., figs. 38 and 39. Leroux, *op. cit.* p. 32, fig. 11.

³ Tsountas, *ibid.* pp. 89 ff., fig. 18; Wace-Thompson, *ibid.* pp. 65 ff., fig. 34; Leroux, *ibid.* pp. 33-34, fig. 13. The remains here are not sufficiently definite to be sure proof of anything.

⁴ *Ann. Arch. Anth.* 1908, pp. 118 ff., 216 ff.

central ridge-pole and at the other upon the tops of the walls, instead of thrusting against them.¹ The rafters are also necessarily straight and rigid. This third type may have developed from the first by the introduction of a supporting ridge under the summit of the hoops (the rod which kept the tops of the hoops properly spaced having been laid *upon* them in the earlier type), or from the second by simply raising the transverse girder somewhat above the front and rear walls it parallels. It may also have developed quite independently of either by the elongation of a round hut with a central post supporting the upper end of rigid rafters, as the tent with two upright poles and a ridge between is developed from the conical tent with a single upright in the centre. Or it may have developed in all of these ways in different localities. The important thing is the influence which such a roof has on the plan of the building it covers.

Like the hoop roof, the roof sloping two ways from a ridge-pole cannot be widened by a multiplication of parallel units, as in the case of the flat roof, because of the difficulty of draining the valleys that would be formed. But like the flat roof borne on girders it cannot be extended greatly in length without intermediate supports for the ridge. Any large structure built on this system must, therefore, be long and narrow, as with the hoop roof, with a median wall or row of columns to uphold the ridge, as with the flat roof borne on girders (Fig. 6).² It is possible, of course, to dispense with the obstruction of the central colonnade, by supporting the ridge on transverse girders from wall to wall, provided that the distance between these side walls is not great, but such a construction, beside necessitating a very narrow plan, is much less obvious than that of direct columnar support³ and can hardly have been as early a form. The idea of placing intermediate supports under the transverse girders themselves and so, by means of a double row of columns, securing considerably greater width, is evidently a still more sophisticated scheme.

¹ Innocent (*op. cit.* p. 11) does not distinguish between ridge-poles which actually support rafters and those which merely hold them in place. His own Fig. 5, in which a roof of planks is very obviously supported by the ridge, confutes his statement as to the non-sustaining character of this member.

² According to Innocent (*op. cit.* p. 17 ff.) the ridge roof supported on axial columns was the earliest form in Denmark, the roof on "crucks" being developed later. These axial posts are still to be found in Denmark, Jutland, the Fünen Isles, Sweden, south Germany, and Switzerland.

³ Cf. Leroux, *op. cit.* p. 79.

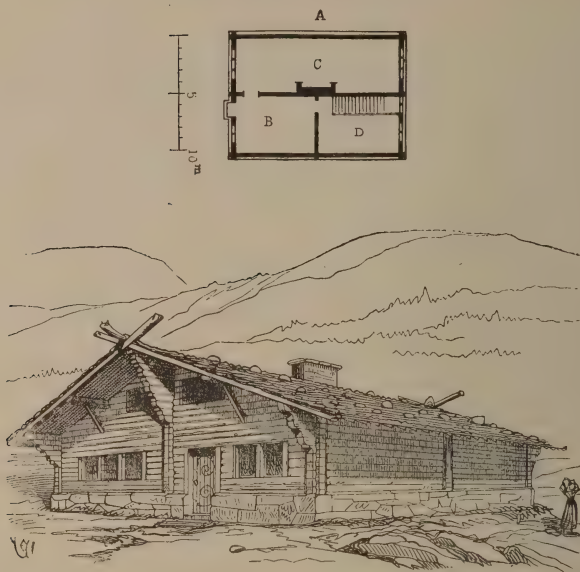


FIGURE 6.—HOUSE WITH RIDGE-ROOF; VOSGES.

The first of these types has been found at Sesklo¹ and at Troy VI,² dating presumably from the Mycenaean period; and probably before the eighth century in the temple of Artemis Orthia at Sparta.³ Later examples are found at Thermos,⁴ Locri,⁵ Paestum,⁶ in the temple of Apollo at Metapontum,⁷ in the little temple to the south-east of temple C at Silenus,⁸ at Neandria,⁹ Eretria,¹⁰ and perhaps Thasos.¹¹ As Washburn points out,¹² the temple

¹ Tsountas, *op. cit.* pp. 102 ff., pl. III, 24, A, 2.

² Dörpfeld, *Troja und Ilion*, I, pp. 170 ff., fig. 63. The foundations of this structure are not at all complete.

³ *B. S. A.* XIV, pp. 17 ff., figs. 5, 6, 7, pl. I; XVI, p. 26.

⁴ Sotiriades, 'Εφ. 'Αρχ. 1900, pp. 161 ff.; *Records of the Past*, I, 1902, pp. 173-181; *Ant. Denk.* II, 5, pl. 49.

⁵ Koldewey and Puchstein, *Die Gr. Temp. in Unteritalien u. Sicilien*, p. 3, pl. I.

⁶ *Ibid.* p. 17, pl. II.

⁷ *Ibid.* p. 39, fig. 38.

⁸ *Ibid.* p. 92, fig. 64.

⁹ Koldewey, *Berl. Winckelmannsprogramm*. LI, 1891.

¹⁰ *Arch. Anz.* 1911, col. 123.

¹¹ *C. R. Acad. Insc.* 1912, pp. 212 ff.

¹² *Op. cit.* pp. 44-45. His contention that a single row of interior columns is evidence of a flat roof seems to me quite untenable. It is much more likely that the temple was narrow because the builders knew only how to use a single row, than that only a single row was used because the temple was narrow.

built upon the foundations of the *megaron* at Tiryns¹ was also probably of this type. At Olympia there are two round-ended structures flanking the Bouleuterion² which have median rows of columns and date from the sixth to the fifth century, or perhaps are built on even earlier foundations. These curvilinear examples make plausible the theory of Leroux³ that the rectangular plan developed from a horseshoe-shaped plan for the ridge roof as well as for the hoop roof; in which case the progenitor of the ridge roof would probably be the round hut with a central post to support the peak.

This whole discussion may seem far removed from the question of the origin of the triglyph frieze, but the accurate distinction of roof forms is really of the utmost importance. I think it may be clearly seen from the foregoing:

I. That prehellenic architecture was not of a simple uniform type; Mycenaean roof construction being in no way related to the curvilinear structures of prehistoric Greece, nor to those of Troy II, though practically identical with the southern flat roof construction of Minoan Crete.

II. That the earliest Doric structures (Fig. 7) distinctly indicate a third type of roof, sloping two ways from a ridge pole, which

¹ Frickenhaus, *Tiryns* I, pp. 2-13, dates this structure as of the seventh century, associating with it a Doric capital found on the acropolis. In a very interesting paper read at Pittsburg, Dec. 1919, Carl W. Blegen of the American School of Athens maintained that this capital had no connection with the foundations, that the latter were built before the earlier foundations of the great *megaron* had been buried, and were probably decadent work of the end of the Mycenaean period. In support of this he cited the statement that Mycenaean sherds were said to be found "all over the site" at the time of the first excavations. Unfortunately there is no possible way now of verifying this statement or definitely establishing the date of the foundations from the contents of the strata above them. So while I feel certain that the dating of Frickenhaus is much too late, I do not feel that it is impossible for these second foundations to have been built by Dorian conquerors immediately on the ruins of a Mycenaean palace destroyed by them.

Mr. Blegen also showed the plan of a house recently excavated at Corinth, in which a rectangular room entered from its narrow side was divided medially by two columns. This structure was certainly dated as Mycenaean or "Ephyrean" by the pottery found above it. The other houses uncovered near by must have had flat roofs because of their irregular plan, and Mr. Blegen claims that the roof of this one was also flat. The plan certainly suggests a roof sloping two ways, but until the plans of the whole excavation have been examined it would hardly be wise to express an opinion of this particular structure.

² *Olympia, Bauwerke*, I. pp. 76 ff., pl. 55; Pfuhl, *Ath. Mitt.* 1905, p. 370.

³ *Op. cit.* pp. 71-78.

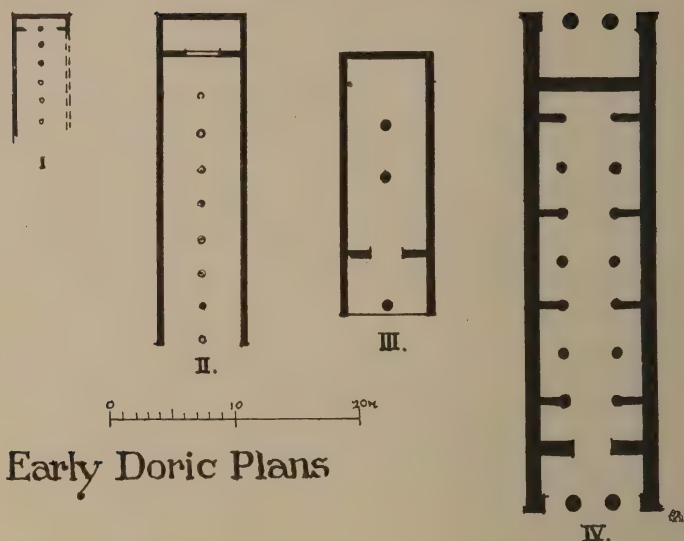


FIGURE 7.—I, TEMPLE OF ARTEMIS ORTHIA, SPARTA, VIII c.: II, OLD TEMPLE AT THERMOS, VIII-VII c.: III, TEMPLE (?) AT TIRYNS, X-VII c.: IV, TEMPLE OF HERA, OLYMPIA, LATE VII c.

had no resemblance to the Mycenaean roof and was without doubt brought in by the Dorian invaders from the north.¹

It is evident then that Noack's restoration of the Mycenaean roof², which Washburn seems to endorse, is correct in that he has made it flat with roof beams running from front to back, but also that his desire to develop primitive triglyphs from the ends of these beams has lead him to give them a size and to space them in a manner altogether unwarranted by any other Minoan construction.

It is also evident that if the Doric roof did not develop from the flat Mycenaean roof, but was from the beginning a sloping construction,³ neither triglyphs nor metopes could possibly be derived

¹ The common practice of giving the name "Megaron" to all large halls in prehellenic ruins, and considering them all indiscriminately the progenitors of the Greek temple, is an exceedingly unscientific proceeding not warranted by the archaeological evidence at hand. Cf. Washburn, *op. cit.* p. 34.

² *Jb. Kl. Alt.* I, 1898, pp. 654-668. This reconstruction was made prior to the great excavations in Crete. I have no doubt that with the material which is now at hand Noack would amend his details in many respects.

³ That this was the case is shown by the fact that the soffit of the horizontal Doric stone cornice is always sloped, while in the Ionic form where the roof was originally flat, the soffit is always horizontal, even though the roof above be

from the ends of roof beams, for, as Washburn implies,¹ only a heavy flat roof could in any way justify such enormous timbers.

In this connection I should like to point out that even in his own restoration Washburn has not dared to make the layer of clay above the beams as thick as it should be to warrant their great size. In the Lycian tombs where the beams are represented as being in immediate juxtaposition, the layer above is slightly over three times the beam height;² in the stone Ionic architecture derived from a similar construction but with the dentils, which represent the beam ends, slightly separated, the corona above is never less than the dentil height;³ in the drawing which Washburn gives of the church in Cochiti Pueblo⁴ the spaces between the beams are at least twice their width yet the layer above is at least twice their height. But in Washburn's Doric reconstruction⁵ the beams are separated by less than their own width, and yet the clay covering is less than their own height in thickness. Even this is far heavier than Doric forms would suggest, for there the corona is regularly *less than one-third* the height of the frieze. The change in proportion from a beam supporting a mass two or three times its height to one where the mass is only one-third its height, implies an absolute loss of all sense of the construction involved, quite at variance with the intensely structural appearance of other Doric details.

Washburn has raised two objections to my own suggested reconstruction⁶ which I think are easily answered. The first is that the brick piers backing the triglyphs are too frail to stand in a country subject to earthquakes. These piers I have shown as one and a half bricks (or feet) wide, set three and a half bricks on

sloping, and in the raking cornice of the Doric pediment the cornice is also horizontal. The sloping soffit of the Doric horizontal cornice of the pediment is difficult to explain except on the assumption that this member developed originally on the side of the building and was carried across the front by analogy, which is directly contrary to Washburn's ideas (see p. 339) or on the theory that a roof actually sloped down toward the end of the building as well as toward the sides, as in the Etruscan temples (see below, p. 340 and Fig. 8).

¹ *Op. cit.* p. 47.

² Holland, *op. cit.* fig. 3.

³ On the Caryatid porch of the Erechtheum and the choragic monument of Lysicrates the space from the top of the dentils to the top of the corona is slightly more than twice the dentil height.

⁴ *Op. cit.* fig. 1, p. 35.

⁵ *Ibid.* fig. 8, p. 46.

⁶ *A. J. A.* XXI, 1917, pp. 117-158, pl. VII.

centres, and as being ten bricks ($2\frac{1}{2}$ feet) high. The thickness might be one, one and a half or two bricks. Now, as Washburn recognizes, a similar construction of brick piers was employed upon the walls of Athens, and was presumably found stable, for it was rebuilt along the original lines. But the size of the piers (he says) is unknown. The restorations of Müller, Choisy, and Caskey¹ all agree in making the piers along the front of the wall two bricks square by ten bricks high and separated by an open space two bricks wide. I see no reason to doubt the essential correctness of these dimensions, though I have given reasons why I think it possible that the width of the piers was even somewhat less.² But though these piers are slightly heavier than mine, the pillars on the inner side of the same wall are very much lighter.



FIGURE 8.—MODEL OF AN ETRUSCAN TEMPLE: NEMI.

They are described as being two bricks thick and seven feet apart! They could not well have been more than one brick wide, since they probably centered on the piers on the outer side of the wall which are spanned by eight foot lintels. The height could not possibly have been less than that of a man. If such pillars as these with such spacing were able to resist the earth tremors, I cannot see why those I have suggested should find the slightest difficulty in doing so.

His second objection is that my restoration develops the frieze along the side of the temple rather than across the front. I agree with him that the frieze probably appeared on the front of the temple before it appeared on the side, but I should go further and say that it crowned a solid front *wall* long before it appeared above

¹ Caskey, A. J. A. XIV, 1910, pp. 298-309, gives a list of other restorations and a discussion of those mentioned here.

² *Op. cit.* p. 156.

the columns of a portico.¹ For as Guadet² keenly points out, the use of a wooden cap (the *taenia* and *regulae*) upon a wooden architrave is wholly absurd from any constructional point of view.³ And even before the frieze appeared on the temple face, it was probably used as a cap to other fortified walls. It is such a wall that I have intended to represent, an abstract wall, not any particular part of a temple whatever. Nevertheless, my drawing might represent the front wall of a primitive temple as well as a side wall. It is true that in classic stone construction the horizontal cornice across the front is not the edge of an actual roof, but there is at least a suggestion that it represents a primitive construction like that shown in the Etruscan temple models from Nemi and Satricum⁴ where the roof of the portico slopes forward to the horizontal cornice, under the main roof sloping to the sides (Fig. 8).

LEICESTER B. HOLLAND.

PHILADELPHIA, PA.

¹ It is not at all impossible that the temples at Orchomenos (Bulle, *Orchomenos*, I, p. 94; pl. III) and Sparta (*B. S. A.* XIII, pl. 2) were neither *prostyle* nor *in antis* but rather had a front wall opening into the *pronaos* by a door, or by two doors if the *cella* was divided by a median row of columns. Cf. the old temple of Locri in its first state (Koldewey and Puchstein, *op. cit.* I, pp. 2 ff., fig. 3).

² *Elements et Théorie de l'Architecture*, I, pp. 342 ff.

³ In Choisy's reconstruction (*Histoire de l'architecture*, I, pp. 287 ff.) he could evidently find no reasonable structural excuse for a *taenia* upon a wooden architrave; wherefore he omits it altogether from the wood combination, though he shows it in the derived stone form.

⁴ Rizzo, *B. Com. Rom.* XXXVIII, 1910, pp. 281 ff.

DOCUMENTS RELATING TO THE WILL OF LUCA DI
SIMONE DELLA ROBBIA

THE notary's copy of the Last Will and Testament of Luca della Robbia was discovered by Giovanni Gaye and a partial transcription of it was published by him in his *Carteggio inedito d'artisti dei secoli XIV, XV e XVI*, printed in three volumes in Florence during the years 1839-1840. Since then this transcription has been accepted without question, and it has been cited verbatim at least twice, first by Maud Cruttwell¹ and again by Professor Allan Marquand.² Some months ago I decided to collate Gaye's transcription with the original and soon saw that it was far from satisfactory. Gaye had copied only a part of the instrument; had omitted a number of words, which perhaps he was unable to decipher; had made a number of mistakes, more or less important, in transcribing others; and in the case of the clause dealing with the small legacy to the Opera di Santa Maria del Fiore had fallen into grievous error. Accordingly, in view of the importance of the document, I determined to make a careful revision of Gaye's version and to decipher and transcribe the portions of the will which had not been copied by him. My work has been done with the greatest care and, so far as I know, an accurate and complete transcription of the will now appears in print for the first time. I also present a hitherto unpublished photograph of the second page of Ser Agnolo's record which is of great interest as it shows the changes which Luca made in his will after the first draft had been prepared.

The documents³ presented are: I, the Registration Entry of the will; II, Gaye's version of the instrument, cited from Professor Marquand's *Luca della Robbia*; III, my own revised and complete transcription; IV, a Mandate, given to Simone della Robbia

¹ *Luca and Andrea della Robbia and their Successors*, pp. 304-305.

² *Luca della Robbia*, pp. xxvii and xxviii.

³ It is a pleasure to express my hearty appreciation of the courteous aid, which I have received from Dr. Achille de Rubertis and Dr. Giovanni Cecchini, of the Florentine Archives, in deciphering certain difficult portions of the documents.

by his uncle, Luca; V, Gaye's version of the Power of Attorney, given by Luca to Simone to decline for him the office of Consul of the Guild of Masons and Woodcarvers—cited from Professor Marquand's *Luca della Robbia*; VI, my own revised and complete transcription. Documents Nos. I and IV have never been published, even in part.

The first document was discovered by Gaetano Milanese and his transcription was found by me in his *Miscellanea*. I have endeavored to locate the original record but without success. The "*Registro di Santa Maria Novella, No. VII*" exists but the Registration Entry does not appear on page 46 or on any other page of this *Registro*. Nor does it appear in any of the other *Registri di Santa Maria Novella*, a complete series of which exists. For all the *Registri* of the four Quartieri (Santa Croce, San Giovanni, Santa Maria Novella, and Santo Spirito) there are indices *by name of testator*, the references being to the various *Registri* by number. In one of these indices labeled "Santa Maria Novella—San Giovanni," and referring to the *Registri*, No. VII of the respective Quartieri, I found Luca's name as testator, but the reference was to *San Giovanni, No. VII*, not to *Santa Maria Novella, No. VII*. A consultation of the inventory of the *Appendice dell' Archivio Notarile* revealed the fact that the entire series of the *Registri di San Giovanni* no longer exists. We must, therefore, assume that No. VII, at least, of this series was in existence when Milanese made his transcription, that it has disappeared since then, and that Milanese, through an inadvertence, gave the wrong reference.

Ser Agnolo's copy of the will (Documents II and III), drawn by him for Luca della Robbia, covers two pages of the bound volume in which the notary kept copies of all the testaments drawn by him during the years 1442 to 1489. Almost all of the record, in which we are especially interested, was written in his own handwriting, which, as will be seen from the photograph, is regular and not very difficult to read. A comparison of Document II with Document III shows that Gaye dismissed the opening clause with a few words and that he omitted all of the second clause prior to "*Lucas*" and also all of it after the word "*decedere*." It will also be observed that a number of words in the third clause were not transcribed by him.

When Gaye dealt with the fourth clause, he went very far astray for he interpreted what was merely the usual small testa-

mentary provision to cover the expense of registration as a positive legacy of 18 Florins to the Opera. It is only just to him to state that the handwriting is a little difficult at this point; but, had he referred to previous wills, he would have found this identical clause again and again, and so clearly written as to be easily deciphered. Just how he was led astray in making his copy it would be difficult to explain without a photograph to show the original text. However, if the reader will look carefully at the abbreviation for the "*con*" in the word "*confectum*," the next to the last in the photographed text, and bear in mind that this same abbreviation was used for the "*con*" in the word "*constructioni*" in the fourth clause, he will at once understand the origin of the figure "9" in Gaye's transcription.

The fifth clause is by far the most interesting one in the will. It will be seen that, while there are omissions and misreadings (some of them important), in the main Gaye's transcription is accurate. This clause throws a most interesting side light on Luca's character and on his sense of responsibility toward his two nephews. Andrea had been taught to bear his mantle as sculptor and master of terracotta. Therefore, the *atelier*, with its good will, credits, and documents, should with propriety be bequeathed¹ to Andrea, and as the business was an exceedingly prosperous one the exercise of it would ensure a comfortable and dignified existence for him and his family.

Simone, on the other hand, had not been taught anything by his uncle and, inasmuch as the residuary estate did not equal the value of the business bequeathed to Andrea, it seemed to Luca that in making Simone sole heir of the residuum of his property, he had made a proper and equitable division of his possessions between his two nephews.

A careful study of the photograph reveals several points of interest. The first draft of the fifth clause very evidently did not seem to be sufficiently strong and convincing to Luca. Accordingly, to intensify his statement as to the lucrativeness of the atelier he had the phrase beginning with *usque* and ending with *superlucrarj* added; and as the notary probably did not wish to rewrite his copy he wrote the alteration in the margin. It will also be noted that, in the fourth line, the text read originally

¹ The wording of the text would seem to indicate that, if Luca had not actually consigned the *atelier* to Andrea, he had every intention of doing so at an early date.

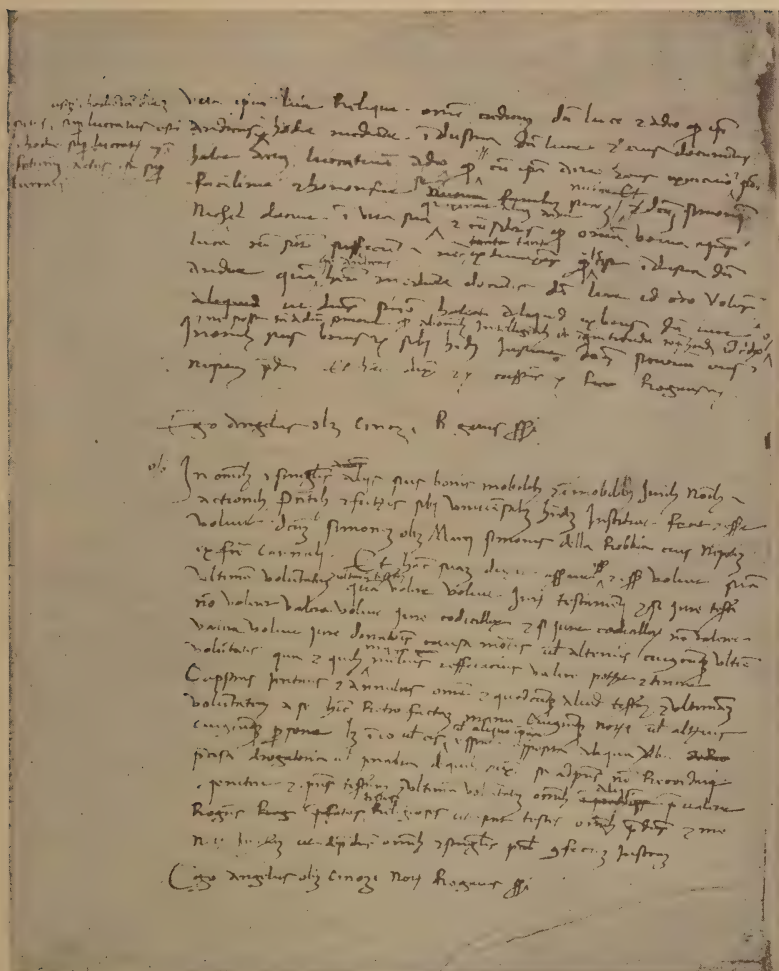


FIGURE 1.—THE WILL OF LUCA DELLA ROBBIA: PAGE 2.

nutrire familiam suam, which was changed and strengthened to *se et familiam suam nutrire*. Again, in the next line, Luca wished it to be clearly understood that he had not given Simone any instruction, and, therefore, he had the phrase *quia exercet aliam artem* (because he is practicing another craft) added as evidence to verify his statement—an interesting point overlooked by Gaye, possibly because he was unable to puzzle out the word *quia* in its abbreviated form. It will also be seen that the phrase beginning *et nec*

posset and ending with *idcircho* was an addition to the first draft of the will to support Luca in his action regarding Simone. And finally the sixth, and last, clause, which in the first draft was expressed in two lines, was entirely rewritten and amplified in the strongest possible legal phraseology and it was added to the notary's copy below his signature at the end of the first draft. The notary then wrote his signature again below this revised clause. As this revision bears no date it was probably composed on the same day as the rest of the will. Certainly it was written before the instrument was executed and presented for registration. The executed draft must have contained all the additions and alterations, to which attention has been called, and after the word *idcircho* the revised last clause took the place of the two-line clause in the first draft.

In 'Unpublished Documents Relating to the Will of Andrea della Robbia'¹ I pointed out that this will appears to have brought about a serious misunderstanding between Andrea and his brother, Simone. Andrea's family, at the time Luca's will was drawn, consisted of his wife and four children. When Luca died in February 1481 (modern style 1482), Andrea's children were eight in number. While, therefore, Luca's superlatives in referring to the lucrativeness of the *atelier* were doubtless justified by the facts, Andrea may well have thought that what was amply sufficient for the proper maintenance of six was not enough for ten. He may also have reasoned sardonically that the *atelier* was of little use to him except as he made it profitable by his own efforts, while, on the other hand, Simone, without any effort on his part, had already received a handsome gift of 750 Florins (Doc. IV²) in cash from Luca and probably also had inherited more cash and other property after Luca's death. For the development of this misunderstanding I refer the reader, who may be interested, to my article mentioned above.

Luca appears to have had either a weakness for, or strong sense of duty toward Simone. Prior to the will we have documentary evidence proving that such special interest existed on his part.

¹ A. J. A. XXIV, 1920, p. 138.

² The mandate, given to Simone by Luca, possibly indicated that the latter feared that some objection might be made to the will, after his death, and that, therefore, he wished to be sure that Simone actually received the money. Or it may have been merely a desire on his part to have the pleasure of making the gift in person. It is fair to assume that by this time, if not before, the *atelier* had been transferred by him to Andrea.

In 1465 Simone matriculated in the Guild of Masons and Woodcarvers, through the powerful influence of his uncle, as is shown by the following unpublished document:

"Simone di marco della robbia recognovit matriculatum luce eius patruj die XVIIJ Augustj 1465."

[*Archivio di Stato, Arte dei Maestri di Pietra e Legname, Libro dei Matricolati, segnato Arti II, Cod. 2 c. 125^t.*]

In 1471 Luca gave power-of-attorney (Documents V and VI) to Simone to decline for him the office of Consul of their Guild as Luca stated that he was not able on account of age and infirmity, to perform the duties of the office.¹ This document was discovered by Gaye and published in part by him in his *Carteggio*. His transcription (Doc. V) has already been quoted by Miss Cruttwell and Professor Marquand from whose *Luca della Robbia* I have cited. Document VI is my revised and complete transcription. It will be noted that Gaye not only gave the date incorrectly and misread certain words, but that he also omitted the latter, and very interesting, half of the original.

It is rather difficult to explain Luca's marked consideration (even if we may not call it favoritism) for Simone except on the ground of personality. Certainly there can have been no artistic bond between them for such documentary evidence as we have all tends to demonstrate that Simone had nothing of the genius displayed by his uncle and brother. While it is doubtless true that Simone was not actively employed in Luca's *atelier* he must have constantly seen his uncle and brother at work; and had the spark of genius been in him it would have shown itself under the stimulus given by such an atmosphere. In 1485, when Simone left the family home on Via Guelfa, a certain Matteo da Terra Rossa, a *fornaciaio* (furnace man—in this case a firer of terracotta), is mentioned as making a payment for Simone which was credited to the account of Andrea by the Capitolo di Santa Maria del Fiore which owned a ground lease on the della Robbia home. This reference would seem to show that Matteo and Simone were associates.

¹ In *L'Arte* XXII, 1919, p. 243, I published the only account existing between the Guild and Luca. It shows that Luca, or possibly Simone as his attorney, acted as member of the Council for the last four months of the year 1471. Also that, either personally or represented by Simone as his attorney (we do not know which was the case), he was counselor or consul for the first third of 1474, the last third of 1475, the second third of 1477, and the first third of 1480. And that, either in person, or Simone for him, he served as *Sindaco* for the last four months of 1475.

In 1495/96, when Andrea was making the *tondi* for the portico of the Ospedale di San Paolo, documents show that this same Matteo and his brother, Marco, sons of Paolo da Terra Rossa, *fornaciai* supplied material (probably roofing or paving tiles) for the portico, and that Simone was associated with them, as after his name the expression "*sta colloro*" is used. It may, therefore, safely be asserted that Simone's knowledge of the art of terracotta was limited strictly to the firing part. In justice to him it should be noted that, while he appears to have been a man of mediocre ability, yet there must have been some big element in his mental equipment as his son, Luca, became one of the greatest Latin scholars of his day.

DOCUMENTS

I

Ser Agnolo di Cinozzo di Gio. Cini (da Cascade) Lucas olim Simonis Marci della Robbia scultor condedit testam(entum) 1470 19 Februarii Simonem Marci Simonis della Robbia eius nipotem ex fratre. (*Archivio di Stato, Registro di S^a M^a Novella*, VII a c. 46. Cited from Milanese, *Misc.* 39 III p c. 20.)

II

Testament of Luca della Robbia 1471 (Old Style 1470).

"In Dei nomine amen, Anno Domini etc, 1470, indictione iv. et die 19 februarii, presentibus—septem fratribus S. Marci.

Lucas olim Simonis marci della Robbia, scultor, civis florentinus, de populo S. Laurentii de Florentia, sanus mente, sensu, corpore, visu et intellectu, nolens intestatus decedere, etc. . . .

Imprimis quidem animam suam omnipotenti Deo ejusque gloriose Matri humiliter et devote recommandavit—et sepulturam corporis sui elegit eo loco et cum illis funeris expensis, prout videbitur suo heredi.

Item reliquit et legavit opere Scē Maria flor. 9 et novem floren. fabrice dicte opere.

Item legavit—domine Checche ejus nipote et filie olim marci Simonis della Robbia, vedue, flor. aur. centum, quos solvi voluit per ejus heredem.

Item dicens—qualiter ipse habet duos nipotes ex fratre, videlicet Andream et Simonem fratres, et filios Marci Simonis della Robbia, et qualiter ipse Lucas tempore vite sue docuit artem suam sculpture dictum Andream, et adeo quod ipse Andreas per se ut magister potest exercere artem dicti Luce, et eidem Andree in vita ipsius Luce reliquit omnem creditum dicti Luce, et adeo quod ipse Andreas mediante industria dicti Luce et ejus documentis habet artem lucrativam adeo, quod usque in hodiernum diem satis superlucratus est, et hodie superlucratur, et in futurum actus est superlucrari, cum ipsa arte et ejus exercitiū potest facillime et honorifice familiam suam nutrire, et dictum Simonem nihil docuit in vita sua; et considerans quod omnia bona non sunt sufficientia nec tanta, quanta industria dicti Andree, quam ipse habet Andreas mediante donatione dicti Luce, et volens ut dictus Simon habeat aliquid ex

bonis dicti Luce, et ne posset tam a dicto Simone quam ab hominibus intelligentibus de ingratitude reprehendi, in omnibus ejus bonis heredem instituit dictum Simonem, ejus nepotem predictum etc."

[*Archivio Generale di Firenze, Rogiti di Ser Agnolo di Cinozzo*. Quoted by Cruttwell, pp. 304-305, from Gaye, I, pp. 184-185.]

III

(In margine: Et publicavi ut hic et Restituj dicto Simonj heredi)

1470 (modern style 1471) die xviii Februarij

In Dei Nomine Amen Anno Dominj ab Eius Salutifere Incarnatione Millesimo quadringentesimo septuagesimo Indictione iii^a et die xviii^o mensis Februarij Actum Florentie in refectorio Fratrum Scī Marcj de Florentia presentibus Fratre Honofriō Andree Honofrj de Florentia

Fratre Allessandro Filippi de Florentia

Fratre Antonio Angelj dellaione (?)

Fratre Stefano Stefanj

Fratre Marcho Pierj Succello

Fratre Zanolio Mattej

Fratre Sante Bardini

omnibus fratribus ecclesie Scī Marcj de Florentia testibus ad infrascripta omnia et singula proprio hore infrascripti testatoris vocatis habitis et rogatis Cum nihil sit certius morte et nihil incertius eius hora hinc est Quod providus et discretus Vir Lucas olim Simonis Marci della Robbia scultor civis florentinus et de populo S. Laurentij de Florentia sanus mente sensu corpore visu et intellectu nolens intestatus decedere sed de suis bonis legitime provvedere suum quod dicitur nuncupatum testamentum sine scriptis procuravit et fecit seu condedit in hunc modo videlicet

In primis quidem animam suam Omnipotenti Deo Eiusque Gloriose Virgini Matri et toti Celestis Curie Paradisi humiliter et devote raccomandavit et sepulturam corporis suj elegit eo loco et cum illis funeris expensis prout videbitur intrascripto suo heredi

Item reliquit et legavit opere Scē Marie Floris de Florentia et nove constructioni murarum civitatis Florentie et nove fabrice dicte opere jnter omnes libras duas f.p.

Item jure legati Reliquit et legavit domine Checche eius nipote et filie olim Marci Simonis della Robbia vedue Flor. aur. centum quos solvi et dari voluit per infrascriptam primam heredem

Item dicens et asserens dictus testator qualiter ipse habet duos nipotes ex fratre videlicet Andream et Simonem fratres et filios olim Marcj Simonis della Robbia eius nipotes ex fratri carnalj et qualiter ipse Lucas tempore vite sue docuit artem suam sculpture dictum Andream et adeo quod ipse Andreas per se ut magister potest exercere artem dicti Luce et eidem Andree in¹ vita ipsius Luce reliquit omnem creditum dicti Luce et adeo quod ipse Andreas hodie mediante industria dicti Luce et eius documentis habet artem lucrativam adeo quod usque in hodiernum diem satis superlucratus est et hodie superlucratur et in futurum actus (having the meaning of *aptus*) est superlucrarij cum ipsa arte et eius exercitio et poterit facillime et honerifice se et familiam suam nutrire Et dictum Simonem nihil docuit in vita sua quia exercet aliam artem et considerans quod

¹The photographed text begins here.

omnia bona ipsius Luce non sunt sufficientia nec tante extimationis quante est industria dicti Andree quam ipse Andreas haberet mediante donatione dicti Luce idcirco volens ut dictus Simon habeat aliquid ex bonis dicti Luce et nec posset tam a dicto Simoni quam ab omnibus intelligentibus de ingratitudine reprehendi idcircho.^o

In omnibus suis bonis etc sibi heredem instituit dictum Simonem eius nipotem predictum Et hanc dixit etc cassans etc Rogans etc

Ego angelus olim cinozi Rogatus suprascripti

^oIn omnibus et singulis alijs suis bonis mobilibus et immobilibus juribus nominibus et actionibus presentibus et futuris sibi universalem heredem instituit fecit et essere voluit dictum Simonem olim Marcj Simonis della Robbia eius nipotem ex fratre carnali Et hanc suam dixit asservit essere et essere voluit suam ultimam voluntatem et ultimum testamentum quam valere voluit iurj testamentj et se jure testamentj non valeret valere voluit jure codicillarum et se jure codicillarum non valeret valere voluit jure donationis causa mortis vel alterius cuiuscumque ultime voluntatis qua et quibus magis melius efficacius valere poterit et tenerit.

Cassans irritans et annullans omnem et quodcumque aliud testamentum et ultimam voluntatem a se hinc Retro factum manu cuiusque notari vel alterius cuiuscumque persone licet in eo vel eis vel aliquo ipsarum essent apposita aliqua verba precisa derogatoria vel penalia de quibus dixit se ad presens non Ricordari et penitere et presens testamentum et ultimam voluntatem omnibus alijs prevalere.

Rogantes prefates testes Religioses ut sint testes omnibus predictis et me notarium infrascriptum ut de predictis omnibus et singulis presentem confectum instrumentum

Ego angelus olim Cinozi notarius Rogatus suprascripti

(Archiv. idem, Rogiti di Ser Agnolo di Cinozzo di Cino, Testamenti 1442-1489, segnato Notai C. 525 a c. 120 e 120^t)

IV

Item postea dictis anno iudictione et die xx^{mo} mensis Maij Actum Florentie in populo Sci Laurentij presentibus Petro Michaelis del giogante (?) et Benedicto vocato Cianfanina ministro Gabelle Contractum civitatis Florentie ambobus dicti populi Sci Laurentij de Florentia testibus etc

MCCCClxxxj Indictione XIIIJ

(In margine: Mandatum Luce Simonis della Robbia)

Lucas olim Simonis Marcj della Robbia civis Florentinus non Revocando etc omni modo etc fecit etc suum procuratorem etc Simonem eius nipotem ex fratre et filium olim Marcj Simonis della Robbia ibidem presentem etc specialiter et nominatim ad promutandum etc usque in quantitatem Florenorum septingintorum quinquaginta Montis Communis comunitatis Florentie in totum semel et plures etc et illos ponendum ad computum etc et propterea dandum quamcumque licentiam etc et generaliter etc dans etc promictens etc Rogans etc

[Archiv. idem, Rogiti di Ser Agnolo di Cinozzo di Cino, 1475-1488, segnato Notai C. 525 c. 129^t e 130]

V

Luca declines office of Consul of Guild of Masons and Woodcarvers.

1471, Aug. 4. "Lucas olim Simonis della Robbia, civis florent. extractus ut ipse asserit, in consulem artis magistrorum de florentia, dicens et asserens se esse et etate et infirmitate adeo gravatus, quod sine periculo sue persone dictum officium commodè exercere non posset etc. . . ."

[*Archivio Generale di Firenze, Rogiti di Ser Agnolo di Cinozzo*. Quoted by Cruttwell, pp. 305-306 from Gaye, I, pp. 185-186, note 1.]

VI

"Item postea dictis anno (MCCCClxxj) Indictione et die secundo mensis septembris Actum flor. in popolo Scī Laurentij de flor^a presentibus Petro antonij legnaiuolo popoli Scī Laurentij predicti et Guglielmo julianj filatoraio dicti popoli Scī Laur. testibus etc."

(In margin: Procura Luce della Robbia)

"Lucas olim simonis della Robbia civis flor. extractus ut ipse asservit in consulem artis Magistrorum de flor^a dicens et asserens se esse et etate et infirmitate adeo gravatus quod sine periculo sue persone dictum officium commodè exercere non posset omni modo etc fecit etc suum procuratorem etc Simonem Marcj della robbia eius nipotem ex fratre specialiter et nominatim ad Renuntiandum dictum officium consulatus et propterea quodlibet juramentum jn predictis necessarium prestandum etc etc et generaliter etc dans etc promictens etc Rogans etc."

[*Archivio dello Stato, Rogiti di Ser Agnolo di Cinozzo di Cino, 1463-1474, Segnato Notai C. 525 c. 304r*]

RUFUS G. MATHER.

ROME, ITALY.

ETRUSCAN SHELL-ANTEFIXES IN THE UNIVERSITY
MUSEUM, PHILADELPHIA

IN a previous article¹ I described a series of archaic antefixes from Cervetri, which are now on view in the University Museum in Philadelphia. These do not in any sense constitute the whole of the Museum's collection. It is the purpose of this paper to describe a very interesting series of later date from the same site. This will be followed in another paper by the publication of a collection of antefixes from Corneto and of antefixes and fragments from various sites, which cannot be grouped within the above classes.

These antefixes and fragments came into the possession of the Museum in the same manner, and under the same conditions as the archaic group already described. While isolated specimens from Cervetri have been published from time to time, no previous attempt has been made, so far as I am aware, to bring together the various known specimens, and assign them to types or groups.²

For various reasons, it is appropriate to begin with the examples from Cervetri. In the first place, they seem to antedate the other specimens; in the second, the description will then follow by a very natural transition that of the archaic specimens from the same site. It will be remembered that these antefixes are part of the finds of an illicit excavation carried on by and for dealers in the year 1869, and seem to be divided among five museums:—the British Museum, the Antiquarium at Berlin, the Glyptothek Ny-Carlsberg at Copenhagen, the Metropolitan Museum in New York, and the University Museum in Philadelphia. The specimens in the two last museums were acquired in 1896-7, by Professor A. L. Frothingham of Princeton University, who was then Acting Director of the newly established

¹ A.J.A. XXIV, 1920, pp. 27 ff.

² Since I wrote the above, it has been brought to my notice that an attempt to classify the Cervetri antefixes is made in Fenger, *Le Temple Etrusco-Latin*, p. 16, and figs. 54-59, which are taken from the figures in *Mon. dell' Inst., Suppl.*, to which I shall frequently refer in the course of this paper.

American School of Classical Studies at Rome,¹ and were divided by him into two parts, the larger of which came to Philadelphia.² There may be a few specimens from this site also in the Museo Artistico Industriale at Rome.³

Prior to the discovery of the Cervetri antefixes, the existence of such specimens with shells or canopies had been known, and several isolated examples had found their way into museums, and been published;⁴ but no group of so many specimens had been brought together.

The earliest shell-antefixes extant seem to be those from Cività Lavinia in the British Museum. This statement is made with

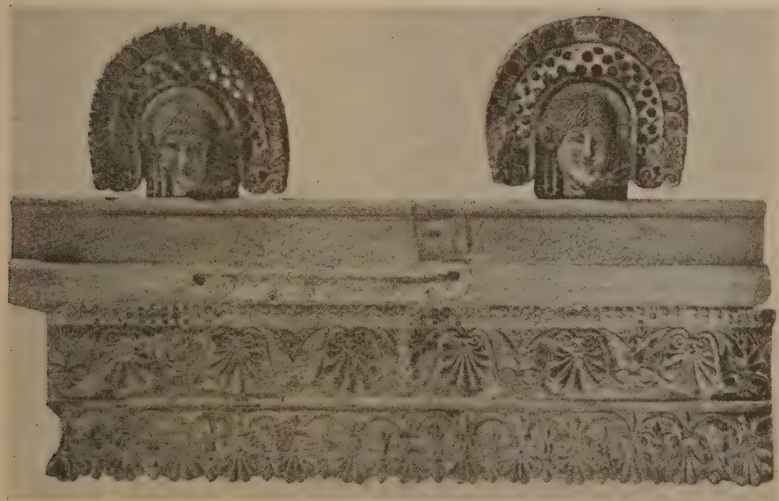


FIGURE 1.—ANTEFIXES FROM CIVITÀ LAVINIA: BRITISH MUSEUM.

reservations, as there is doubtless much unpublished material of still earlier date in the Italian museums. It is, nevertheless, true that the specimens from Cività Lavinia display all the mannerisms and conventionalities of archaic work (Fig. 1).⁵

¹ Now the School of Classical Studies of the American Academy in Rome.

² As far as is known, the objects to be described have not been published before.

³ See *Mon. dell' Inst., Suppl.* pls. II, 1, 2, 3, and III, 1, 2, 3, and Fenger, *op. cit.*

⁴ For example, Panofka, *Terracotten in Berlin*, pls. VII, X, XLV, and especially LII–LIII. This book was published in 1842.

⁵ British Museum, *Catalogue of Terracottas*, B605, B606; Walters, *Hist. Ancient Pottery*, I, p. 101, and pl. III; Wiegand, *Glyptothek Ny-Carlsberg*, p. 17, fig. 4; Luce and Holland, *A.J.A.* XXII, 1918, p. 327, fig. 5.

The specimens from Cervetri with shell or canopy attachment may be readily divided into five classes, two of which are represented in the examples in New York and Philadelphia. These types fall into an earlier and a later period, the first two being in the former, the last three in the latter. With regard to the chronology, it would seem as if these antefixes should be placed at the end of the fifth and beginning of the fourth centuries B.C. It is the belief of Walters that the whole group belongs in the fifth century B.C.;¹ but the present tendency in Etruscan chronology would date them a century later. The evidence offered by the

few specimens of revetments found on this site² would also tend to throw the date of these antefixes well into the fourth century, if not later.

The five types may be again grouped into two general classes,—those with female heads in the centre, and those with the heads of satyrs. For convenience, these will hereafter be called “male” and “female” antefixes.

The earliest period is represented by Types I and II, Type I being female, Type II male. Only one specimen of Type I is



FIGURE 2.—ANTEFIX IN BERLIN;
TYPE I.

known to me. It is at present in the Antiquarium at Berlin, No. 6681, 3 (Fig. 2).³ This is a large antefix, 52 cm. high, with a maximum width of about 50 cm. The female head in the centre is treated in a strongly archaic manner, with slanting, almond-shaped eyes, a conventionalized head-dress, and a suggestion of

¹ British Museum, *Catalogue of Terracottas*, p. 175, in describing B621, an antefix of Type V, from Cervetri; Walters, *op. cit.*, II, pp. 315 f.; cf. pl. LIX for B621.

² Revetments from this site in Berlin have been published by Wiegand, *op. cit.*, figs. 12-29; Luce and Holland, *op. cit.*, fig. 1; and revetments from this site in Philadelphia and New York, by Luce and Holland, *op. cit.*, fig. 6, No. 2, and fig. 7.

³ Published by Wiegand, *op. cit.*, p. 29, fig. 43. Another specimen is published (perhaps it may be the same one), in *Mon. dell' Inst., Suppl.* pl. III, 2. The writer of the text accompanying this plate had not seen any examples of this type. See also Fenger, *op. cit.*, fig. 56.

the archaic smile. It should be noted that the ears are like those of a satyr. Around the head runs the large shell, or canopy, decorated with palmettes and lotus-flowers, ending on each side in a palmette, giving a total of five palmettes and four lotuses. All the palmettes are of seven petals. Between each palmette and the adjoining lotus a portion of the canopy is left open, so that we may call Type I a type with perforated shell. It will be observed that this principle is also employed in the antefixes from Civit  Lavinia. The canopy is held to the cover-tile by an arched buttress of solid terracotta, which is preserved. The antefix rests on a base, or plinth, which is decorated with a maeander pattern.

The disposition of colors is as follows:—the flesh is white; the hair and veil are black; the eyes, eyebrows, lips, ear-rings, and head-dress are light red; the drapery at the base is dark red; while the palmette-lotus pattern is treated in black, white, and dark red on a background of dark blue. It should be stated here that this dark blue is very close to black, and it is not unlikely that it was originally black and has faded or washed out into its present shade. I say this on the analogy of the specimens that I have myself studied.

Wiegand, in describing this piece, declares that it rested on a roof with a pitch of 1:8.

Type II, the male counterpart of Type I (Fig. 3), is represented by two speci-

mens, one in Copenhagen, and one in Berlin, No. 6681, 5.¹ Like Type I, they have the openwork or perforated shell, and practically the same palmette-lotus pattern, of five seven-petal



FIGURE 3.—ANTEFIX IN COPENHAGEN: TYPE II.

¹ The Copenhagen example is published by Wiegand, *op. cit.*, pl. 176, 1a, and 1b and described on p. 29, No. IX. The one in Berlin is published and described, *ibid.* p. 29, and p. 30, fig. 44. See also *Mon. dell' Inst., Suppl.*, pls. II, 1, and III, 1. The writer of the text in *Mon. dell' Inst., Suppl.* declares that he has seen one example of this type. His pl. III, 1 represents a slight variant, which might be called Type IIa, which is otherwise unknown to me. See also Fenger, *op. cit.*, figs. 54 and 55.

palmettes, and four lotus-flowers. The shell is held to the cover-tile by a strong arched buttress of terracotta,¹ and the antefix rests on a base, or plinth, ornamented with a maeander pattern. This base differs from that of Type I, in that the maeander runs to the right, whereas in the former type it ran to the left.

The head in the centre is that of a heavily bearded Silenus, with erect, equine ears. The archaic nature of the type is proven by the conventional curls of the hair, the slanting eyes, the archaic smile, and the locks that fall in waves to the base in a manner suggesting the "Egyptianizing" head-dress of the earlier specimens.

Both specimens of Type II are of the same height (50.5 cm.) and of about the same estimated width, making them, therefore, very close to a perfect square. This is important, as we shall find this same ratio of height to width prevailing in all the types except Type III.

The disposition of colors on the two specimens is the same, and is as follows:—flesh, yellowish white; eyes white; pupils of eyes, lashes and eyebrows black; hair and moustache red, as also a patch on the face; rest of beard black; ears red on the outside, interior white. The background of the head is black, picked out with blue, while that of the palmette-lotus is black. This



FIGURE 4.—ANTEFIX IN BERLIN:
TYPE III.

ornament is principally white, with accessories of black and red, while the maeander is of black, white, and red also. These same colors were used on the maeander in Type I.

These two types represent the earlier shell antefixes from Cervetri of the group under discussion. The style is archaic rather than archaistic, and Wiegand and Fenger agree in their antedating the other types. The fact that so few specimens are known would also tend to show their earlier date.

With Type III, then, we come to the later period of these shell antefixes from Cervetri,

¹ Illustrated by Wiegand, *op. cit.*, pl. 176, 1b.

and find ourselves examining work of the fourth century B.C., while the earlier types may well be considered as belonging in the latter half of the fifth. In fact, Type III may well be the latest of all the groups, and shows in many ways a distinct advance in execution and conception. One specimen, in Berlin, No. 6681, without a complementary number, is known to me (Fig. 4);¹ while a specimen in the British Museum, No. B623, is also of this type² (Fig. 5), and should be classed with it.

The antefix in Berlin has a height of 52.5 cm., while that in the British Museum is registered at $15\frac{3}{4}$ inches or about 40 cm., but, in explanation of this discrepancy, it should be remembered that the canopy of the latter specimen is nearly all broken away.

The central head is that of a Satyr, heavily bearded, with a snub nose, erect, equine ears; and a long, drooping moustache, with curly ends. The hair is represented as thick and matted, and a fillet is worn around the head. On the plinth, instead of the maeander-pattern found on the other types, we find the paws of a panther-skin, tied around the Satyr's neck in a realistic manner. The shell



FIGURE 5.—ANTEFIX IN BRITISH MUSEUM: TYPE III.

is solid, and, in the case of the example in Berlin, is decorated with a palmette-lotus pattern. This pattern differs, however, from that of the preceding types, not only in being solid, but also in the shell ending on each side in a half lotus, giving a decoration of three palmettes, one in the centre and one on each side; two lotus flowers; and two half lotuses. The central palmette has seven petals; the other two, five each.

¹ Described and published by Wiegand, *op. cit.*, pp. 29, 30, and fig. 45. See also *Mon. dell'Inst., Suppl.* pl. II, 2. The writer of the accompanying text admits having seen one specimen of this type. See also Fenger, *op. cit.*, fig. 57.

² See British Museum, *Catalogue of Terracottas*, p. 175. I am greatly indebted to Mr. H. B. Walters, Keeper of Greek and Roman Antiquities in the British Museum, for kindly permitting me to publish this antefix.

On the specimen in Berlin, we find the flesh parts in red, the hair and beard black, the fillet buff, the pupils of the eyes brown, and the lashes and eyebrows black. The head in the British Museum has the same arrangement of colors, except that the pupils of the eyes are also black. The palmette-lotus pattern on the Berlin specimen is in red and white on a black background, while the specimen in London has red "tendrils"¹ on a dark blue background.

It is my opinion, as already stated, that this type is probably the latest of the five. The style is more naturalistic, and the



FIGURE 6.—ANTEFIX IN PHILADELPHIA: TYPE IV.

rendering of the paws of the skin on the base is an ingenious touch not to be found elsewhere. In the next type, therefore, it is my opinion that we revert to a slightly earlier group. I have made this arrangement with malice aforethought, however, in order to bring at the end of this part of the paper the description of the specimens existing in Philadelphia and New York.

Type IV, the next to be discussed, is, then, a little earlier than Type III. It is also a male type, of which Type V is the female counterpart. Four examples are known to me, all in American

¹ This is the term given by the *Catalogue*; the photograph shows that the design is the same as in the specimen in Berlin.

museums, two being in Philadelphia and two in New York. I have selected for illustration one of the specimens in Philadelphia, No. MS1804 (Fig. 6).¹

For various reasons it will be convenient to give a formal description of only one of the antefixes, namely, the one illustrated. A series of charts has, however, been prepared, covering the others. These charts give the dimensions, and comparative color schemes, and reveal various interesting facts, to which I shall allude later. But, before describing the particular specimen selected, it will be well to examine the things which all four have in common, and which make them a type, distinct from any other type.

The head, again, is of a Satyr. The beard is shorter, the face wider than in the types previously described. The ears are not so prominent, being smaller, and set more closely to the head, which is crowned with a wreath or fillet. The shell or canopy is solid, and has the same arrangement of palmettes and lotus-flowers that we saw in Type III. All four examples are largely restored, and put together from many fragments. The shell was originally held to the cover-tile by a solid buttress of terracotta, which is gone on all the specimens except one of those in New York.

MS1804, to come now to the particular specimen to be described, is a good example of the type. It has a height of 47.2 cm., and a maximum width of 49.3 cm. The dimensions of the head are: width from ear to ear, 20.3 cm., and height, from end of beard to top of head, 25.6 cm. As the centre palmette has been very largely restored, it should be said that the height is only approximate, as the restoration is doubtless somewhat short of the actual height.

The disposition of colors is as follows:—flesh parts are red; the beard and hair are black; the fillet or wreath was probably yellow, as there are traces of this color on the specimen at this point; the pupils of the eyes, lashes, and eyebrows are black; the irises of the eyes are white; the teeth, which show through the open mouth, are white; and the base is red and white. On the shell we find the background around the head (called on the chart

¹ See also *Mon. dell' Inst., Suppl.* pl. II, No. 3. The writer of the accompanying text declares that he has seen four examples of this type; as his text was published before the acquisition of these objects for the two American museums, these may be the ones to which he refers; or they may be in the Museo Artistico Industriale at Rome. See also Fenger, *op. cit.*, fig. 86.

"lower background") is red; the upper background, black; the palmette and lotus petals and spirals, white; the lotus buds, red; the base of the palmettes, white,¹ the sepal of the right lotus, blue, of the left, white.

Let us now glance at the charts that have been prepared for Type IV, taking up first that of comparative dimensions. The striking features here revealed are the impossibility of obtaining absolutely accurate "over all" measurements owing to the enormous amount of restoration, and the extraordinary way in which the measurements of the heads (the interior measurements) agree, there being only one exception to each measurement. To produce such agreement the quality of the clay must have been very uniform. In type V, we shall find a much greater discrepancy in the interior measurements.

COMPARATIVE MEASUREMENTS OF KNOWN SPECIMENS OF MALE
ANTEFIXES FROM CERVETRI. TYPE IV

Example	Height	Width	Ear to Ear	Tip of Beard to Crown of Head
Philadelphia MS1804.....	47.2*	49.3	20.3	25.6
Philadelphia MS1805.....	47.7*	46.7†	19.9	25.6
New York GR1041.....	49.5*	49.7	19.9	25.6
New York GR1042.....	44.1	44.3†	19.9	25.1

All measurements are given in centimetres.

* Estimated; centre palmette restored.

† Estimated; a side palmette is restored.

Turning now to the color-scheme charts, for heads and canopies respectively, we find another interesting fact revealed; namely, that no two of the four antefixes are exactly alike in points of color. While the general colors employed remain the same, yet we find in small details that considerable latitude is permitted. The special points of difference are the wreath on the heads, and, on the canopies, the bases of the palmettes and the sepals of the lotuses. Besides these places, New York GR1042 differs from all the others in the irises of the eyes, and the lotus buds. The charts, however, will show all these things at a glance, much more briefly and convincingly than any amount of text.

¹ The left palmette has been restored, and the base, therefore, does not exist.

COLOR-SCHEME CHART—MALE ANTEFIXES FROM CERVETRI. TYPE IV

A. HEADS

Example	Flesh	Beard and Hair	Wreath	Pupils of Eyes, Eyebrows and Lashes	Irides of Eyes	Teeth	Base
Philadelphia MS1804 .	red	black	yellow	black	white	white	red and white †
Philadelphia MS1805 .	red	black	blue	black	white	white	red and white
New York GR1041 . . .	red	black	dark blue	black	white	white	†
New York GR1042 . . .	red	black	dark blue	black	red	white	†

† All trace of color gone; much restored.

COLOR-SCHEME CHART—MALE ANTEFIXES FROM CERVETRI. TYPE IV

B. SHELLS OR CANOPIES

Example	Upper Back- ground	Lower Back- ground	Pal- mette Petals	Pal- mette Bases	Spirals	Lotus Petals	Lotus Buds	Lotus Sepals
Philadelphia MS1804	black	red	white	white	white	white	red	right, blue; left, white
Philadelphia MS1805	black	red	white	blue	white	white	red	blue
New York GR1041	black	red	white	white	white	white	red	white
New York GR1042	black	red	white	black	white	white	white	black

We now come to Type V, the female counterpart to Type IV. Of all five types, it is the commonest, and has been the most often published. Nine examples are known to me, of which three are in Philadelphia, two in the British Museum, two in Copenhagen, one in New York, and one in Berlin. There may also be some in the Museo Artistico Industriale in Rome.¹ One of the examples in Philadelphia has been selected for description as a representative of the type, while another of the Philadelphia

¹ See *Mon. dell' Inst., Suppl.* pl. III, 3. The writer of the text accompanying the plate declares that he has seen eight specimens of this type. See also Fenger, *op. cit.*, fig. 59.

specimens represents an abnormal disposition of colors and for that reason will also be described.

As in the case of Type IV, a series of comparative charts has been prepared to show the measurements and color-schemes of the different antefixes in comparison with each other. To this has also been added a chart of publications, which gives a fairly complete bibliography of each of the nine specimens, especially as regards illustrations.

Philadelphia MS1803, as far as the modelling and general disposition of colors is concerned, stands as a fairly good example



FIGURE 7.—ANTEFIX IN PHILADELPHIA: TYPE V.

of the type (Fig. 7) and has been selected for that reason. We see here a great advance in conception and execution over the previous female type, Type I, and over all of the male types, with the possible exception of Type III. Fenger,¹ indeed, would even go so far as to imply that this group belongs at a slightly later period than any of the others; but it does not seem to me that there is any evidence to prove this, and that the chances are that Type V, although undoubtedly of more pleasing workmanship, must be regarded as synchronous with Type IV, and possibly antedating Type III.

¹ *Op. cit.*, p. 16, where he speaks of this type as "têtes idéalisées de déesses."

The female head has here lost all traces of archaism. The eyes are set without the slant observed in Type I, the archaic smile is absent, and instead we see a rather thoughtful expression portrayed. The hair, too, is naturalistically rendered, being parted, waved, and then looped up in clusters over the ears. In the ears are enormous ear-rings, of a type fortunately not uncommon among extant specimens of Etruscan gold jewellery. Wiegand¹ refers in this connection to "la grande parure d'or du Museo Gregoriano," by which I presume he means the treasure from the Regolini-Galassi tomb, which, it will be remembered, is also from Cervetri.² The British Museum possesses a large collection of

ear-rings of this form,³ while the University Museum in Philadelphia acquired in 1895 a small gold ear-ring of this shape (No. MS310), also, by a singular coincidence, said to have come from Cervetri (Fig. 8).



FIGURE 8.—ETRUSCAN
EAR-RING: PHILA-
DELPHIA.

On the head, a diadem or stephane is worn, decorated with rosettes. Drapery is rendered below the head, coming around the neck. Around the head runs the shell, or canopy, which is decorated with the same arrangement of palmettes and lotus-flowers found in Types III and IV. This is of three palmettes, two lotus-flowers, and two half lotuses. The central palmette has seven petals, the other two five each, while the two half lotuses form

the ends of the shell at right and left. This shell was held to the cover-tile by means of a heavy buttress of terracotta, which is preserved on the specimen selected for description (Fig. 9). In this specimen, too, most of the cover-tile is preserved, which gives a fairly good idea of its probable size and diameter, the inner diameter, as preserved, being about 15.5 cm., and the thickness

¹ *Op. cit.*, p. 28.

² For the most convenient description of this treasure, see Helbig, *Führer* (1912 ed.), I, pp. 391-400, especially p. 398, No. 729. I have been informed that Mr. C. Densmore Curtis of the American Academy in Rome is working on a new publication of the jewellery from this site, which, when it appears, will replace all previous descriptions.

³ Marshall, *Catalogue of Greek, Etruscan and Roman Jewellery in the British Museum*, Nos. 2252-2261, and pl. XLIV.

of the tile being a little over 2 cm. The antefix, as in Type IV, rests on a base, which is ornamented with a maeander pattern.

These are general details in which all the examples of the type agree. On this particular specimen, the flesh is rendered in white;



FIGURE 9.—ANTEFIX IN PHILADELPHIA: SIDE VIEW.

the hair, in yellowish brown; the lips, in red; the pupils of the eyes, eyebrows and lashes, in black; the ear-rings and diadem, in yellow; the drapery, in red; and the base, in red and white. The upper background of the canopy is black or dark blue; the lower background, red; and the whole palmette-lotus ornament, white.

The following parts of the antefix have been restored; a large fragment of the left palmette, including most of the spirals, half of the base, and the centre and right petals; the end of the left petal of the left lotus, and

practically the entire right petal; the three left petals and part of the left spiral of the centre palmette; and the centre and right petals of the right palmette. The rest of the antefix has been mended in many places. It has a height of 46.8 cm., and an estimated maximum width (estimated, merely, on account of the restorations on the side palmettes) of 49.6 cm. The face from ear-ring to ear-ring is 22.3 cm., from chin to crown of head 21.2 cm.

It will now be appropriate to study the charts that accompany this part of the paper, and cover the different specimens of Type V. The first chart, that of publications, will show that this type has been frequently published in the past, some of the examples being illustrated in more than one place. The second chart, that of comparative dimensions, gives what may be called the inner and outer measurements of each specimen, and places them in convenient relation one with another. It will be seen that there is not the same uniformity that prevailed in Type IV, as regards inner measurements, although, with one exception, that

of Philadelphia MS1826, they are approximately the same. The reason for the discrepancy in the Philadelphia specimen I believe to be due to the fact that it is of a more porous and less firm quality of clay, which would cause a greater shrinkage in the mould. There are various discrepancies also in the outer, or "over all" measurements, which may doubtless be due to the

CHART OF PUBLICATIONS—FEMALE ANTEFIXES FROM CERVETRI. TYPE V

Example	Publication
Philadelphia MS1802.....	Fig. 10 of this article.
Philadelphia MS1803.....	Fig. 7 of this article.
Philadelphia MS1826.....	Unpublished.
British Museum B621.....	<i>Catalogue of Terracottas</i> , p. 175. Walters, <i>Hist. Ancient Pottery</i> , II, pl. LIX. <i>Cat. Greek, Etruscan, and Roman Jewellery in British Museum</i> , p. 225, fig. 71.
British Museum B622.....	Unpublished.
Copenhagen VII, 1.....	Arndt-Wiegand, <i>Glyptothek Ny-Carlsberg</i> , p. 27, VII, 1, and pl. 176, 1.
Copenhagen VII, 2.....	Unpublished.
New York GR1040.....	Unpublished.
Berlin 6681.....	<i>Arch. Zeit.</i> 1871, pp. 1, 2, and pl. 41. Arndt-Wiegand, <i>l.c.</i> , p. 28, and p. 29, fig. 42.

See also *Mon. dell' Inst.*, *Suppl.* pl. III, 3, and also Fenger, *Le Temple Etrusco-Latin*, p. 16, fig. 59.

COMPARATIVE MEASUREMENTS OF KNOWN SPECIMENS OF FEMALE ANTEFIXES FROM CERVETRI. TYPE V

Example	Height	Width	Ear-Ring to Ear-Ring	Chin to Crown of Head
Philadelphia MS1802.....	47.8	49	21.8	21.4
Philadelphia MS1803.....	46.8	49.6*	22.3	21.2
Philadelphia MS1826.....	‡	‡	19.8	19.5
British Museum B621.....	45.4	§	§	§
British Museum B622.....	48.5	§	§	§
Copenhagen VII, 1.....	47.5	49.5†	21.9†	21.4†
Copenhagen VII, 2.....	43	§	§	§
New York GR1040.....	49.5*	52.6*	22.2	22.3
Berlin 6681.....	49	50.5†	22.7†	22†

All measurements are given in centimetres.

* Estimated: palmettes restored, at centre or sides.

† Estimated: measured from photographs or drawings to scale.

‡ Fragmentary; no shell remains.

§ Measurement unobtainable owing to insufficient data given in published description.

same causes, or else, the measurements recorded may be merely estimated, owing to the presence of restorations making correct measurements impossible, or owing to the fact that the measurements were taken from photographs or drawings where a scale was supplied. There is not enough evidence in these various discrepancies in measurement, great though some of them may be, to warrant the assumption that more than one mould was used in the making of these specimens. It will be observed that the inner measurements, and, to a lesser extent, the outer as well, give a series of almost perfect squares.

We finally come to the two charts, which deal with the disposition of colors on the various examples, which have been called

COLOR-SCHEME CHART—FEMALE ANTEFIXES FROM CERVETRI. TYPE V
A. HEADS

Example	Flesh	Hair	Lips	Pupils of Eyes, Eye- brows and Lashes	Ear- Rings	Diadem	Drapery	Base
Philadelphia MS1802	black	red	red	red	red	red	red	red and white
Philadelphia MS1803	white	yellow brown	red	black	yellow	yellow	red	red and white
Philadelphia MS1826	white	red	*	*	*	*	red	*
British Mu- seum B621..	white and red	†	red	black	†	†	red	†
British Mu- seum B622..	white	*	*	*	*	*	red	*
Copenhagen VII, 1.....	white (?)	red	red	†	†	†	red	red
Copenhagen VII, 2.....	†	†	†	†	†	†	†	†
New York GR1040	white and red	yellow	red	pupils red, rest black	brown	yellow	red	red and white
Berlin 6681 ...	white	red	red	black	yellow brown	yellow brown	red	red, white and black

* All traces of paint have disappeared.

† Insufficient data given in description make it impossible to assign the proper colors.

COLOR-SCHEME CHART—FEMALE ANTEFIXES FROM CERVETRI. TYPE V

B. SHELLS OR CANOPIES

Example	Upper Back-ground	Lower Back-ground	Pal-mette Petals	Pal-mette Bases	Spirals	Lotus Petals	Lotus Buds	Lotus Sepals
Philadelphia MS1802	red	red	black	red	black	black	white	red
Philadelphia MS1803	black or dark blue	red	white	white	white	white	white	white
Philadelphia MS1826	*	*	*	*	*	*	*	*
British Museum B621..	dark blue or black	red (?)	white	green	white	white	white	green
British Museum B622..	dark blue or black	*	*	green	*	*	*	green
Copenhagen VII, 1.....	†	†	white	blue	white	white	†	blue
Copenhagen VII, 2.....	†	†	†	†	†	†	†	†
New York GR1040	black or dark blue	red	white	black	white	white	red	black
Berlin 6681 ...	black or dark blue	red	white	grey green	white	white	red	grey green

* Shell nearly all gone, or else no traces of paint remaining.

† Impossible to assign proper colors, owing to insufficient data given in description of object.

"color-scheme charts;" and I submit that, in handling such a comparatively large number of objects, the chart method is more graphic by far than text would be. It compresses into a few pages information which, if written out, would cover two or three times the amount of space. Moreover it presents the information in a manner which enables the student to see at a glance the comparison between the different objects, and draw his own conclusions therefrom.

It will be seen from looking at the color-scheme charts, that in minor details of color, no two of the specimens can be said to be absolutely alike, with the possible exception of the two in the British Museum. The differences, however, are for the most part in minor details only, such as the bases of the palmettes, and the sepals of the lotus-flowers, and the general disposition of

colors remains the same in all of them, as is the case in Type IV. But there is one exception to this; one example, the disposition of colors on which is so abnormal, and so much the antithesis of the others, that it deserves a special description. Like the one already described as characteristic of the type, this, too, is in



FIGURE 10.—ANTEFIX WITH ABNORMAL COLORING: PHILADELPHIA.

Philadelphia, and bears the number MS1802 (Fig. 10).

It has a height of 47.8 cm., and a maximum width of 49 cm., with interior measurements of 21.8 and 21.4 cm., respectively, as the chart of comparative dimensions shows. It will be seen that the interior and exterior measurements point here, too, to a series of perfect squares.

It is also important on account of the small amount of restoration that was needed, the only places restored being

a small part of the left half lotus at the end, part of the left full lotus, and part of the central palmette. The back cover-tile has been restored, but a number of fragments of tile, which are said to belong to this antefix, and which join to each other perfectly, have been found, and are part of the University Museum's collection. An attempt to join them to the antefix, to see whether they truly belong to it, has not as yet been made, owing to the restoration in plaster of a cover-tile. The buttress, which connected the shell with the tile, has also been lost, but has not been restored.

It is, however, in the color-scheme employed that the importance of this antefix rests. The flesh is rendered in black, instead of the normal white; the eyes and lashes, red, instead of the usual black; the ear-rings and diadem in red, instead of the usual yellow or brown. As regards the shell or canopy, the whole background is red. In every other specimen, it is divided into an upper and a lower background, the former being black or dark blue, the latter, red. The palmette and lotus petals and the spirals are black. In every other specimen where a description is given, they are white. The bases of the palmettes and sepals of the lotus-

flowers are red. This is the place where experience shows the greatest divergence in color among the different antefixes of this type; but no other antefix described has this color. The lotus buds are white, and this is found in several other specimens. Other parts not mentioned agree in color with the general run of the specimens. But it will be seen that this antefix is the direct antithesis of the rest of the group as far as its general employment of colors is concerned, and is, therefore, worthy of a special description.

In conclusion, I should like to say a word regarding the relation which these antefixes bear towards the newly rediscovered Law of Dynamic Symmetry. I do not pretend to be an expert in applying the doctrine of whirling squares, and root-five rectangles, although I believe that the law exists, and that an archaeologist cannot afford to neglect it. It is the contention of its chief protagonist, Mr. Jay Hambidge, that it does not apply to Etruscan art; that their symmetry was static, rather than dynamic. All kinds of measurements were taken in an attempt to prove that for these antefixes dynamic symmetry was employed. My measurements do not appear to prove this, but point rather to the conclusion that Mr. Hambidge is correct, and that they were constructed along lines of static symmetry.¹

STEPHEN BLEECKER LUCE.

UNIVERSITY MUSEUM,
PHILADELPHIA, PA.

¹ I wish here to acknowledge my obligations to the following persons: to my chief, Dr. G. B. Gordon, for permission to publish these antefixes, and for many facilities freely granted me; to my very good friend, and collaborator, Mr. Leicester B. Holland, for many suggestions and much help; to Mr. H. B. Walters, of the British Museum, for the photograph of the antefix B623, and for permission to publish the same; to Mr. Edward Robinson and Miss Gisela M. A. Richter, of the Metropolitan Museum in New York, for assistance cheerfully and ungrudgingly given, and many courtesies too numerous for me to enumerate; and to Professor George H. Chase of Harvard University for giving me access to valuable books in the Harvard Library that I could not obtain elsewhere.

ARCHAEOLOGICAL DISCUSSIONS¹

SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

WILLIAM N. BATES, *Editor*

220, St. Mark's Square, Philadelphia, Pa.

GENERAL AND MISCELLANEOUS

The Bronze Age of Northern Europe.—At the November (1915) meeting of the Berlin Archaeological Society, Herr Kiekebusch spoke, with illustrations and with references to his own and other publications, on the relics of the Bronze Age of the March of Brandenburg which are in the Märkisches Museum at Berlin. Like the collections in Stockholm, Copenhagen and elsewhere, these remains show a northern prehistoric heroic age of a splendor rivaling that of the Mycenaean period in the south, and having certain points of contact with it. Of especial interest is the fact that, like Dr. Schliemann in his discoveries at Troy, Mycenae and Tiryns, the searchers here were in many cases guided to important finds solely by legend and oral tradition. (*Arch. Anz.* 1915, cols. 270-274.)

Pre-Roman Monuments of the Balearic Islands.—In *Sitzb. Mün. Akad.* 1914, 6, pp. 1-68 (13 pls.; 14 figs.), ALBERT MAYR describes monuments of pre-Roman times on the islands of Mallorca and Menorca. The buildings described are chiefly towers (round or square) of the type called Talayot, and walls of semi-oval plan (*Naus* or *Navetas*). Small objects are of flint and other stone, belonging to the stone age, of metal (chiefly bronze, including weapons, bracelets, rings, votive animals, etc.), and of terracotta (chiefly common pottery). Of the buildings the earliest seem to be the round talayots of Mallorca. The talayots seem to have been built as fortified habitations and places of refuge. The oval walls are remains of tombs and of dwellings. Subterranean and partially subterranean dwellings show that the early inhabitants were troglodytes. The chronology of the monuments of these islands is uncertain.

Explorations in Montenegro and Albania.—In 1916, when Austrian troops were in possession of the land, C. PRASCHNIKER and A. SCHÖBER made two archaeological journeys in Montenegro and Albania. Starting from Cetinje, where they found the small collection of antiquities from Doclea almost de-

¹ Beginning with Volume XXV the departments of Archaeological News and Discussions and of Bibliography of Archaeological Books will be conducted by Professor SIDNEY N. DEANE, Editor-in-charge, assisted by Professor C. N. BROWN, Miss MARY H. BUCKINGHAM, Dr. T. A. BUENGER, Professor HAROLD N. FOWLER, Professor HAROLD R. HASTINGS, Professor ELMER T. MERRILL, Professor LEWIS B. PATON, Professor A. S. PEASE, Professor S. B. PLATNER, Professor JOHN C. ROLFE, Dr. JOHN SHAPLEY, Professor ARTHUR L. WHEELER and the Editors.

No attempt is made to include in this number of the JOURNAL material published after June 30, 1920.

For an explanation of the abbreviations, see pp. 118-119.

stroyed, they visited the following sites which they describe: Doclea, Medun (Illyrian Meteon), Skutari (with description of the antiquities in the Jesuit college there), the castle of Vigu, Leš (Alessio or Lissos) where the powerful town walls are imposing, Acrolissos which they located on a height to the south-east of Lissos and overlooking its acropolis, Kruja, Zgorzež, Pertrejša and Durazzo where a much injured relief of Pan with three nymphs, a centaur relief, and one with the figure of a winged Victory writing on a shield were noted built into walls. A small male head, two reliefs representing charging warriors and several inscriptions were removed by Servians to Belgrad. Other sites visited were the Byzantine ruins of Porthes, the castle and piers of the ancient bridge at Elbassan, also the Monastery of Saint John Vladimir with its antiquities, Berat, Fjeri, Pojani (Apollonia) where reliefs and inscriptions were noted, Marglić, Ardenica, Libovca, Divjaka, Kavaja, and Preza. On their second journey they examined Dulcigno (Olcinium), Pezana (Bassanica), Laçi, Gaitani, Kodra Maršenjt, Kalaja Samoborit, Vuksanlekaj, Šabanovići, Cembrücke, Tresanica, Kolovoz and Nikšić. Most of the sites still preserved portions of their ancient walls and in a few places there were pieces of Roman roads and occasional milestones. No important antiquities are reported. [*Archäologische Forschungen in Albanien und Montenegro*. VON C. PRASCHNIKER UND A. SCHÖBER. (Akademie der Wissenschaften in Wien, *Schriften der Balkan-kommission*, Heft VIII.) Wien, 1919, Hölder. 104 pp.; 117 figs.; map. 4 to.]

Ancient Decorative Wall-Painting.—A summary of the material for the study of the art of wall-painting in the Graeco-Roman world, with an outline of the different styles and their relations, is given by M. ROSTOVITZ in *J.H.S.* XXXIX, 1919, pp. 144-163 (4 pls.; 3 figs.). Although best known at Pompeii because of A. Mau's exhaustive study and publication, the existing or recorded remains of paintings, many of them not yet published, in houses, vaults, tombs, and temples, together with the related mosaics and painted stelae and vases, cover a period from the seventh century B.C. to mediaeval times, and a territory from Palmyra, South Russia and Egypt, to Gaul, Britain and Belgium. The structural division of the wall surface into horizontal sections, corresponding originally to stone base and brick upper wall with connecting member and with cornice, was the basis of all Greek decoration. The added vertical architectural features of columns, panels, etc., were characteristically Italian and western. The use of marble incrustation, first known in the palace of Mausolus in Caria, and the later floral styles, both naturalistic and conventionalized, were all of oriental origin.

The Painting of Ogmios.—The painting of the Gallic divinity Ogmios described by Lucian in the *Hercules* is discussed by FRIEDRICH KOEPP, *Bonn. Jb.* 125, 1919, pp. 38-73. He concludes that there was a god Ogmios though there is no other mention or representation of him known to us; that there is no evidence of the identification of a Gallic god of eloquence with Hercules; that Lucian's painting, if it ever existed, was, therefore, probably an allegory such as the Calumny of Apelles; that the fantastic allegorical treatment agrees well with what is known of Gallic art; that the execution was probably as dependent on the Graeco-Roman tradition as the rest of the art of Gaul.

Strollers in Antiquity.—In *Sitzb. Mün. Akad.* 1918, 6, pp. 1-53, HUGO BLÜMNER enumerates, with references to ancient writers and works of art, the various kinds of strolling folk who plied their trades in ancient times. They

were rhapsodes, musicians, tumblers, actors, mimes, pantomimes, story-tellers, strong men, acrobats, rope-dancers, gymnasts of all kinds, stilt-walkers, men who walked up walls, fancy riders, jugglers, slight-of-hand performers, fire-eaters, sword-swallowers, snake-charmers, animal trainers, persons who managed puppet theatres, imitators of birds and animals, soothsayers, magic healers, charlatans, and begging priests.

The Ancient Stage.—The ancient stage was the subject of an address by A. FRICKENHAUS delivered for the Winckelmann bi-centennial in Bonn before the "Verein von Altertumsfreunden im Rheinlande." It is printed in *Bonn. Jb.* 125, 1919, pp. 193-210 (pl.). The author endeavors to visualize the theatre and a number of typical plays.

Miscellaneous Ivories.—In *B. Metr. Mus.* XV, 1920, pp. 12-17 (3 figs.) J. B. gives a general account of the ivories in the Metropolitan Museum which antedate the Gothic period. He classifies them as Egyptian, late classical, east Christian, *i.e.* Syrian and Egyptian, Byzantine, Carolingian, Romanesque and Musulman.

Ancient Helmets.—In *Mus. J.* XI, 1920, pp. 68-76 (7 figs.) S. B. L(UCE) publishes six ancient helmets long in the Museum of the University of Pennsylvania. They are, a helmet with a high triangular crest from Narce; two Corinthian helmets, one earlier and one later; an Etruscan helmet with cheek pieces; and two round Roman helmets.

Queen Dynamis of Bosphorus.—A bronze bust found in 1898 near Novorossijsk, on the north shore of the Black Sea, serves as the basis of an article on the history of the kingdom of Bosphorus from the death of Mithradates the Great to the time of Caligula. The bust represents an elderly woman of character and dignity, with a coiffure of the time of Livia and the Agrippinas, and wearing as head-dress the upright tiara of the Persian kings bound with a diadem and covered with rosettes and eight-rayed suns, indicating a queen-priestess. It is undoubtedly a portrait of Dynamis, daughter of Pharnaces and granddaughter of Mithradates, who ruled over the kingdom of Bosphorus, alone and jointly with several husbands, during a large part of the reign of Augustus. The names and characteristics of different members of the dynasty, with their mixed Achaemenid, Thracian and Sarmatian affinities, are to be traced through coins, and in rather scanty literary references. (M. ROSTOV-TZEFF, *J. H.S.* XXXIX, 1919, pp. 88-109; 2 pls.; fig.)

Early Chinese Sculpture.—In *Sitzb. Mün. Akad.* 1915, 6, pp. 1-62 (22 figs.) L. SCHERMAN publishes twenty-one examples of early Chinese plastic art. Twelve of these are of clay (two tiles, a dog, a hen, four human figures, four heads) sent by the American missionary Th. Torrance. These come from western Ssüch'uan and may all be dated between 100 B.C. and 600 A.D., probably all considerably earlier than the last-mentioned date. There are noticeable differences of style, which may be due to difference of race, or of date, or both. The other objects published are of stone (one Japanese Bodhisattva, probably Kwannon, is of wood and is assigned to the seventh or eighth century), and all are Buddhistic. The dates proposed are from the early part of the sixth century to the eighth. One interesting relief group of Buddha Prabhutaratna and Sakyamuni has an inscription giving the date of dedication as February 14, 546 A.D. The publication of these monuments is accompanied by valuable bibliographical references.

EGYPT

The Reliefs of the Sun-Temple of Rathures.—In *Sitzb. Mün. Akad.* 1914, 9, pp. 1–18, F. W. VON BISSING discusses the reliefs of the sun-temple of Rathures at Abu Gurāb, near Memphis. These reliefs represent the ceremonies of the foundation of the temple, and are the only such representation extant belonging to the Old Kingdom. Here the ceremony of cleansing the temple before it is handed over to the god is replaced by the festival of Sed (*die Sedfeier*). The description and interpretation of this festival here given agree with the words of Rameses III in the Harris papyrus, pls. 49 f.

The Monotheism of Ikhnaton.—In the *Journal of the Society of Oriental Research*, III, 1919, pp. 70–80 S. A. B. MERCER discusses the question as to whether or not Ikhnaton was a monotheist. He concludes that he was not a monotheist but a henotheist.

The Morals of the Middle Kingdom.—In the *Journal of the Society of Oriental Research*, III, 1919, pp. 1–14, S. A. B. MERCER discusses the morals of the Middle Kingdom of Egypt.

The Cult of Dionysus in Egypt.—In *C. R. Acad. Insc.* 1909, pp. 237–243 P. ROUSSEL discusses a papyrus document published in *Ber. Kunsts.* XXXVIII, cols. 189–197 showing that Ptolemy Philopator instituted an official cult of Dionysus in Egypt.

BABYLONIA, ASSYRIA AND PERSIA

A Lament to Aruru.—In the *Journal of the Society of Oriental Research*, III, 1919, pp. 14–18 (2 pls.) JOHN A. MAYNARD publishes with translation Babylonian tablet No. 112 in the Metropolitan Museum of New York upon which is written a lament to Aruru. She is addressed as a goddess of war, of agriculture and of fertility.

Sumerian Liturgies and Psalms.—PROFESSOR LANGDON has published as the fourth part of the tenth volume of the Babylonian Section of the Museum of the University of Pennsylvania *Sumerian Liturgies and Psalms*. In an introduction he discusses the religious texts found at Nippur and now in Philadelphia and Constantinople, emphasizing the importance of the epic compositions and the liturgical texts. The tablets in this book include a lamentation of Ishme-Dagan over Nippur, a liturgy of the cult of Ishme-Dagan, a liturgical hymn to Innini, a psalm to Enlil, a lamentation on the pillage of Lagash by the Elamites, a lamentation to Innini on the sorrows of Erech, a liturgical hymn to Sin, a lamentation on the destruction of Ur, liturgical hymns of the Tammuz cult, a liturgy to Enlil, an early form of the series *d-Babbar-Gim-è-ta*, a liturgy of the cult of Kesh, the third tablet of the series *"The Exalted One who Walketh,"* and a Cassite tablet in four columns explaining Babylonian cult symbols. A note at the end of the last tablet states that "It is the property of the temple Esumera." [*Sumerian Liturgies and Psalms*. By STEPHEN LANGDON. (*Publications of the Babylonian Section of the Museum of the University of Pennsylvania*, Vol. X, No. 4.) Philadelphia, 1919, University Museum. Pp. 231–353; pls. LXXI–CV. 4to.]

Lists of Sumerian Personal Names from Nippur.—In the third part of Volume XI of the *Publications of the Babylonian Section of the Museum of the*

University of Pennsylvania EDWARD CHIERA completes his study of the personal names in the Temple School of Nippur. In his introduction he discusses new contributions to the field, Akkadian and Sumerian names, names from literature, the character of the texts, the grouping of the names and similar documents. Translations and transliterations of names are added as well as an index and thirty-four autograph plates illustrating seventy-eight tablets. [*Lists of Personal Names from the Temple School of Nippur. Lists of Sumerian Personal Names.* By EDWARD CHIERA. (*Publications of the Babylonian Section of the Museum of the University of Pennsylvania*, Vol. XI, No. 3.) Philadelphia, 1919, University Museum. Pp. 179-279; pls. LXXI-CIV.]

Contributions to Babylonian Lexicography.—In the *Journal of the Society of Oriental Research*, III, 1919, pp. 36-41; 81-85 S. LANGDON discusses and explains nine obscure phrases found in Sumerian inscriptions.

A Babylonian Grammatical School Text.—In the *Journal of the Society of Oriental Research*, III, 1919, pp. 65-69 J. A. MAYNARD discusses tablets numbered 197 and 198 of the Hoffmann collection. They are duplicates and preserve a school text. No. 200 is a missing part of No. 198.

Origin and Relations of Certain Assyro-Chaldaean Weights.—In *J. Int. Arch. Num.* XIX, 1918-1919, pp. 263-272 (2 figs.) MICHAEL C. SOUTZO propounds the theory that ancient systems of weights begin with the grain—originally the real grain of wheat, barley, or the like (see *A.J.A.* XXIV, 1920, p. 174). The differences between the various systems may be accounted for by assuming the use of a different kind of grain and also, perhaps, of different multiples of the grain chosen. Roman weights give the following table (in grammes):—grain (of wheat) = 0.047019 gr.

24 grains = 1 scruple = 1.128456 gr.

576 grains = 24 scruples = 1 ounce = 27.0830 gr.

6912 grains = 288 scruples = 12 ounces = 1 pound = 325 gr.

The Babylonian or Assyro-Chaldaean series comprises a shekel of 180 grains, a mina of 60 shekels (10,800 grains), a talent of 60 minas (3600 shekels = 648,000 grains). The grain of this series is shown to be identical with that of the Roman series. The heavy talent of Antioch was equal to 375 Roman pounds (= 2,592,000 Chaldaean grains); the Babylonian talent of 3,600 darics contained $3,600 \times 180 = 648,000$ grains; the talent of Nineveh, double the Babylonian, contained 1,296,000 grains, and the talent of Susa, double that of Nineveh, contained 2,592,000 grains, *i.e.*, was identical with the heavy talent of Antioch. The Hebrew talent of 125 Roman pounds is identical with the double Median (Persian) talent of 864,000 grains.

The Royal and the Standard Cubit in Herodotus.—In describing the fortifications of Babylon, Herodotus says (I, 178) that the wall was fifty royal ells (or cubits) thick and two hundred ells high, and he adds that the royal or king's ell (*βασιλικὸς πῆχυς*) was three fingers longer than the standard (*μέτρος*) ell. A similar distinction is made by the scholiast on Lucian *Cataplous*, 16). The royal ell is mentioned in Assyrian and Babylonian texts of the seventh century and in a private document of the Persian empire, of about 500 B.C. The Babylonian cubit, originally of 30 inches or finger-widths, was in these times of 24 fingers, and a foot of 16 fingers was used; hence the ratio was the same as in the Greek foot and cubit, 2:3. The exact lengths have been variously estimated, but it is probable that the square bricks and tiles found in build-

ings made by Nebuchadnezzar II, which have sides in this ratio, are the actual Babylonian square cubit and square foot of his time. They measure 333 mm. and 499 mm., which are also the values given to the Attic foot and cubit by Dörpfeld in his later calculation. Hence it seems probable that the Attic-Aeginetan metric system was the same as the Babylonian and used the king's ell, and that the cubit of 444 mm., corresponding to the smaller Greek foot of 296 mm., was the standard or μέτρον cubit of Herodotus. (F. H. WEISSBACH, *Arch. Anz.* 1915. cols. 149-166.)

Marsyas a Deified Ass.—In *R. Ét. Anc.* XXI, 1919, pp. 237-248 S. SCHIFFRE argues that the word *Imer(i)su* found in certain Assyrian inscriptions is the name of a divinity to whom the ass was sacred; that this divinity was in reality a deified ass, and that he is to be identified with Marsyas. His original home was Syria, not Phrygia. The writer cites such evidence as the story of Samson in *Judges* 15: 15-19 to support his identification. He argues further that the people of Muski with their king Mita (*i.e.* Midas) mentioned in the annals of Sargon II were Phrygians.

Belshazzar and Darius the Mede.—In *C. R. Acad. Insc.* 1919, pp. 184-203 Lieutenant Colonel DIEULAFOY points out that the time between the capture of Jerusalem (598/7 or 587/6 B.C.) and the edict of Cyrus freeing the Jews in 538, *i.e.* the year after his capture of Babylon, was either 60 or 49 years, not 70 as stated in *II Chron.* 36: 21. Seventy was, however, used because it was a sacred number. The capture of Babylon referred to in *Daniel* V occurred in 521 B.C. The ruler at that time was Nadintarbel of the inscriptions, who called himself son of Nabouhanid. He was either the brother of Belshazzar, or Belshazzar himself, and had assumed the name of Nabouchodonoser. His conqueror was Darius Hystaspes, *i.e.* Darius the Mede.

Notes on the Coinage of the Persian Empire.—In *J.H.S.* XXXIX, 1919, pp. 116-129 (pl.; fig.), G. F. HILL summarizes, with comments of his own what is known or conjectured about Persian coins in the ten reigns from Darius I, son of Hystaspes, to Darius III Codomannus (512-330 B.C.). The gold and silver coins, known to the Greeks as darics and sigloi (shekels), were reckoned in the ratio 20: 1, like English sovereigns and shillings, but various duodecimal fractions of both denominations were also made. Although certain series can be distinguished, according to the mode of portraying the Great King, it is extremely difficult to classify individual specimens and to assign them to definite reigns. A hoard of 300 darics found in the Athos canal of Xerxes with 100 early Attic tetradrachms cannot well be later than 480 B.C., but such basic points for dating are few. The coins showing the figure of the king with no indication of a waist line seem to belong to the earlier reigns, before Cyrus the Younger, and a beardless king may be Cyrus himself. A lion on the reverse of one coin may indicate the mint at Sardes. Many of the coins have punch marks made by local bankers and many are cut or stabbed to test their genuineness. Their average technical and artistic standard is not high.

SYRIA AND PALESTINE

A Bibliography to the Archaeology of the Old Testament.—In the *Journal of the Society of Oriental Research*, III, 1919, pp. 19-35, S. A. B. MERCER pub-

lishes a bibliography to the archaeology of the Old Testament 1914-1917 with very brief notice of the articles and books mentioned.

Monuments of Palestine in the Time of Jesus.—Under the title *Denkmäler Palästinas aus der Zeit Jesus* (*Das Land der Bibel*, Bd. II, Heft 1. Leipzig, 1916, Hinrich. 39 pp.) Dr. PETER THOMSEN gives a general sketch of the monuments in Palestine which Jesus might have seen, and probably did see. He includes aqueducts, roads, harbors, citadels, temples, theatres, buildings in Jerusalem erected by Herod, especially the temple, cemeteries, sculpture, inscriptions and coins.

Inscriptions of Sinai.—About ten inscriptions from Sinai, written in an unknown alphabet, are discussed by R. EISLER in a monograph, *Die Kenitischen Weihinschriften im Bergbauggebiet der Sinaihalbinsel* (Freiburg i. B., 1919). The writing is found to be Semitic, influenced by the hieroglyphic; the language a Canaanite dialect; the date that of the Hyksos; the place the site of a Semitic sanctuary. (S. R., *R. Arch.*, fifth series, X, 1919, p. 380.)

Coinage of Antiochus IX of Syria.—C. OMAN supplements his paper of some three years ago on the coinage of Antiochus Grypus by another on the chronology of the coins of his half-brother, called Philopator, or more commonly Cyzicenus, relating them carefully to the history of the king's reign. (*Num. Chron.* 1919, pp. 201-216; 2 pls.)

ASIA MINOR

The Hittite Language.—In *C. R. Acad. Insc.* 1919, pp. 203-206 J. LOTH calls attention to a recent book on the Hittite language by Carl J. S. Marstrand, Professor of Celtic at Christiania, entitled *Caractère indo-européen de la langue hittite* (1919). The conclusion reached is that it belongs to the western group of Indo-European languages with Germanic, Italo-Celtic and Greek, but is especially closely connected with Italic, Celtic and Tokharian. It is, however, an entirely independent language. The Hittite verb is especially enlightening.

Lydian Inscriptions.—Under the title 'Zu den lydischen Inschriften' (*Skrifter utgifna af Kungl. Humanistiska Vetenskaps-Samfundet i Uppsala*. XX. Uppsala, 1919, Akademiska Bokhandeln. 43 pp.) O. A. DANIELSSON discusses Littmann's *Lydian Inscriptions*, Part 1. He gives a sketch of the grammar as far as it can be made out, calls attention to certain words such as the demonstrative pronoun *es*, or *es-s*, or *est*; the relative and indefinite *hi-s* with which he compares the Hittite *kis*; the enclitic particle *-k* = *and*, etc. He praises Littmann's treatment of the alphabet, which has no *p* and is most like the Lycian; but he disagrees with him on certain points. Thus the character which looks like Ψ he would represent by *L*, not by \tilde{u} . He cites a case where it stands for the Greek λ . He would, therefore, write *halmilu*, which he thinks means "king." He compares the Greek $\pi\acute{\alpha}\lambda\mu\upsilon\varsigma$, from Hipponax. For the change from *h* to *p* he cites *hıdāns* = *Apollo*, in the phrase *hıdāns artemuk* = *Apollo and Artemis*. The word *dāc* he interprets as "great." Thus *aliksāntruł dāc* = *Alexander the Great*. He thinks the Lydian inscriptions show few resemblances to the Etruscan. The latter language cannot have been derived from the former, though it may be related to it. If the Etruscans went from Asia

Minor to Italy in the eleventh century B.C., as he is inclined to believe, their language and the Lydian may have shown closer resemblances at that time.

Coinage of Chios.—J. MAVROGORDATO adds some notes to his series of articles on the coinage of Chios, basing them on some material that has recently come into his hands. The magistrate's name ΠΥΘΙΟΞ he now reads as ΠΥΘΙΩΝ. A new name, Nikomedes, appears on a coin from the Ready sale, and another case of the name Xenodotos is noted, together with two specimens of the rare overstruck coins, all from the same sale. (*Num. Chron.* 1919, pp. 217–220.)

GREECE

ARCHITECTURE

The Metroon by the Ilissus and its Frieze.—The whole of *J. Int. Arch. Num.* XVIII, 1916–1917 (160 pp.; 6 pls.; 68 figs.) consists of a monograph by J. N. SVORONOS on the Metroon by the Ilissus and its frieze. The Metroon is the Ionic Temple (Stuart and Revett, *Antiquities of Athens*, I, pl. 2, 1). The frieze is reconstructed from five slabs previously known, to one of which a small fragment in Athens is added (Cf. Studniczka, *Friesplatten vom Ionischen Tempel am Ilissos, in Athen, Berlin, und Wien nachgewiesen, zum Winkelmannsfeste des archaologischen Seminars der Universität Leipzig am 5 December, 1910*; Watzinger, *Arch. Anz.* p. 37, No. 29, in *Jb. Arch. I.* XVIII). A relief from the basis of Nigrinus at Eleusis (Staës, *Δελτ.* 1917, Suppl. p. 77, fig. 1) is accepted as a copy of a lost slab. So the eastern frieze represented (1) Cimon and the victors at the Eurymedon before the gods and heroes of Agra; (2) a series of gods and heroes (Eurymedon Στεφανηφόρος, Alkon, Amynus, Heracles, Hephaestus, Zeus Hymettius, Demeter Achea, Hecate, Agra, Iacchus, Nike, Athena, Cora, Pluto; (3) the offspring of the Athenian women at Lemnos. On the sides only one slab at each end (cf. the "Theseum") was adorned with a relief. That at the east end of the south side represented Athenian maidens seized by Pelasgians of Hymettus near the spring of Callirrhoe, and corresponding to this on the north side was the rape of Attic women at Brauron by Pelasgians of Lemnos. The reconstruction of the western frieze and the two adjoining slabs is supported by no extant fragments. The representations proposed are (1) the acquisition of Lemnos by Miltiades, (2) Miltiades and his associates in that acquisition appearing before the wind-gods of Agra, (3) those wind-gods, (4) gods of Delphi, (5) Miltiades, son of Cypselus, with deities and nymphs connected with his family, (6) the acquisition of the Thracian Chersonesus by Miltiades, son of Cypselus. The temple was erected by Cimon shortly after his victory at the Eurymedon (462 B.C.), and the frieze was probably the work of Alcamenes.

Callirrhoe was the first Enneacrunus, and later both names were transferred to the fountain constructed under Pisistratus. The triangular precinct called by Dörpfeld the precinct of Dionysus ἐν Αἰμναῖς was originally sacred to Pluto Zagreus. The springs at Kaisariane, their sacred properties, and the deities with whom they were connected, are discussed. The Phlyakes are identified with the Γεφυραῖοι and connected with the story of Pluto and Persephone. The Ἥρωσ Στεφανηφόρος is found to be Eurymedon, who, with Alkon

makes up a pair of Dioscuri (Cabiri, Μεγάλοι θεοί) of Pelasgic origin. Their chief seat of worship was at Thoricus (and Sunium). They presided over metallurgy and the pre-Hellenic "coinage" of Attica. The semicircular building at Sunium, called by Staës ('Αρχ. Ἐφ. 1900, p. 135) a granary, was the Attic mint of the time of the Peloponnesian war. Moneta Salutaris of Rome was an imitation of Epione of Sunium. Two colossal "Apollo" statues found at Sunium (Πρακτικά, 1906, p. 85; *Ath. Mitt.* 1906, p. 363; *A.J.A.* 1907, p. 96; W. Deonna, *Les "Apollons archaïques,"* Geneva, 1909, pp. 135-138) are interpreted as representations of this pair of deities or heroes, and it is hinted that other similar figures should be similarly interpreted.

The monograph contains many other observations, theories, and suggestions relating for the most part to early Attic religion and traditions.

The West Pediment of the Temple of Poseidon at Sunium.—In 'Αρχ. Δελτ. I, 1915, pp. 1-27 (19 figs.) A. K. ORLANDOS discusses the construction of the west pediment of the temple of Poseidon at Sunium, of which parts have been excavated west of the temple. Two upright blocks from the back make it possible to determine the height of the pediment. Part of one of the end acroteria was discovered, as well as the block which supported it. The latter is carved with a palmette and lotus design. The central acroterium was found in 1873 and was long supposed to have belonged to a grave monument. The design consists of spirals and palmettes crowned by a fan-shaped palmette. The acroteria were of a coarse island marble. Part of the cornice was also found. The pattern of the design upon it is still preserved although the colors have perished. It consisted of a double palmette and lotus band. The writer also discusses the reconstruction of the roof.

The Temple of Apollo Ptoios.—In 'Αρχ. Δελτ. I, 1916, pp. 94-110 (19 figs.) A. K. ORLANDOS publishes a study of the architectural details of the temple of Apollo Ptoios. It was a hexastyle, peripteral Doric temple 24.72 m. long and 11.65 m. wide, with thirteen columns on the sides. It had a pronaos but no rear chamber.

SCULPTURE

A Greek Bronze Head of the Fifth Century B.C.—A fifth century bronze head belonging to the Ashmolean Museum is published by P. GARDNER in *J.H.S.* XXXIX, 1919, pp. 69-78, 232 (pl.; 4 figs.). It is small life size, evidently broken from a statue of a young boy, and it shows him in the act of binding on the fillet of victory. The metal is about $\frac{3}{8}$ of an inch thick, cast by the cire-perdue process. Although fragmentary and far from complete, the head has distinct charm. It is of the Polyclitan school with Attic leanings. A palmette or lotus pattern inlaid in silver on the fillet suggests a connection with the palmette crown of Hera and a possible origin at Olympia.

The Warrior from Daphni.—At the November (1915) meeting of the Berlin Archaeological Society, Herr Neugebauer spoke on the torso of a warrior from Daphni, in the National Museum at Athens, which was published by Richardson in *A. J. A.*, First Series, IX, 1894, p. 53. It is of more than life size and belonged to a combat group, and although the body and the right leg to below the knee alone are preserved, the position is sufficiently clear. The man had sunk upon the left knee and was facing his opponent, with body

thrown violently back and right leg outstretched at an angle of 60° with the left. The style is Aeginetan rather than Attic, and dates between the time of the west pediment and that of the east pediment of the temple of Aphaea, but this is not itself a pediment figure. Its artistic importance lies in the position of the body and in analogies with the discus-thrower of Myron, with drawings on red-figured vases, etc. Possibly search for the temple of Apollo which Pausanias says was on the Sacred Way, near the site of modern Daphni, would throw some light on the meaning of the group. (*Arch. Anz.* 1915, cols. 274-278; 2 figs.)

Dionysus-Sardanapalus.—At the December (1915) meeting of the Berlin Archaeological Society, the seventy-fifth Winckelmannsfest, W. AMELUNG spoke on the bearded, seated figure in the Vatican commonly known as Sardanapalus. A replica found in Crete, with ivy crown and traces of a thyrsus, proves that the type is a Dionysus. A study of these two statues, with replicas at Athens and London and copies of the head in Palermo, Naples and Florence, suggests a Praxitelean original, although the drapery of the London example is more in the style of the fifth century. (*Arch. Anz.* 1915, cols. 279-282.)

A Praxitelean Statue from Acarnania.—In *R. Arch.*, fifth series, X, 1919, pp. 273-276 (pl.), FRANZ CUMONT publishes a statue of Praxitelean style, which is said to have been found among the ancient ruins near the village of Zaberda, south of Vonitza, in Acarnania, and was brought to Brussels in 1913. The pedestal—undoubtedly the original one—bears the name 'Αγγοσάφερα, in letters of a time not far from 300 B.C. The statue (height 0.538 m.) represents a young woman with two torches, *i.e.*, with the attributes of Cora (cf. the relief from Eleusis, *Ath. Mitt.* XX, 1895, pl. VI). The style is obviously Praxitelean, and the statue may possibly be a copy of some work of Praxiteles.

The Portraits of Menander.—In *Jb. Kl. Alt.* XXI, 1918, pp. 1-37 (10 pls.; 5 figs.) F. STUDNICZKA sets forth the evidence for identifying as portraits of Menander the well-known series of heads representing a handsome man of about fifty years of age. He thinks that there are at least thirty-two ancient copies extant. The portraits show the influence of Lysippus.

The Venus of Melos and the Apollo of Cyrene.—The chance juxtaposition in the British Museum of the Apollo of Cyrene with a cast of the Venus of Melos, brought out a marked resemblance between the two statues in structure, and treatment, so that they may well be regarded as the work of the same artist. This large cult statue of Apollo, found at Cyrene by the British excavating party, is an important original Greek work of the second century B.C. and deserves much more appreciation than it has yet received. It belongs to the first and best of the five classes which should be distinguished in late classical sculpture, too often dismissed as an unimportant whole. Several suggestions for the missing parts of the Venus are to be found in later imitations of the type. Thus, the left foot was supported on some object several inches high; the drapery was not necessarily held by the right hand; some upright object, perhaps a male figure on a smaller scale, a statuette, stood as a support at the left side of the statue. (W. R. LETHABY, *J.H.S.* XXXIX, 1919, pp. 206-208; fig.)

The Victory of Cyrene.—In *Rend. Acc. Lincei*, XXVII, 1918, pp. 356-364, (pl.) L. MARIANI discusses a statue of Victory, found, among other remains dating from the time of the Antonines, in a precinct of Aesculapius, at Zavia

el Beda (the ancient Balagrae) in the Cyrenaica. It is of a somewhat unusual type, severe and hieratic, motionless and calm, less than life-size (1.58 m. in height), and made from a fine-grained Greek marble. Dress and pose recall the best classical period of Greek art, the Lemnian Athena or the Athena Parthenos for example. The wings are rather inorganically attached and the impression of forward movement is given by placing the figure on a plane which slopes slightly to the front. The derivation from Athena statues is further indicated by a small, almost brooch-like aegis.

The Faulty Colossus.—In *Sitzb. Mün. Akad.* 1915, 3, pp. 3–10, PAUL WOLTERS ('Archäologische Bemerkungen,' II, 4.) discusses the passage in Περὶ Ἑψόους 36 δ κολοσσὸς ὁ ἡμαρτημένος οὐ κρείττων ἢ ὁ Πολυκλείτου δορυφόρος, and the modern attempts to explain it. He concludes that the colossus referred to is the Colossus of Rhodes and that there is an error in the text; ἡμαρτημένος must be wrong, and Χάρητος or some other word applicable to the Colossus of Rhodes should be substituted.

VASES AND PAINTING

Red-Figured Cups.—Some remarks on the work of the vase painter Douris and upon red-figured cups by other artists, with references to the writer's *Vases in America*, are published by J. D. BEAZLEY in *J.H.S.* XXXIX, 1919, pp. 82–87 (pl.; fig.). Of the three cups illustrated, one by the Panaitios painter and apparently dedicated to Douris, belongs to the owner of Lewes House; the other two, by the Colmar painter, are in the University Museum at Philadelphia and in the Hofmuseum at Vienna.

A Vase Fragment from Orvieto.—A red-figured cylix from Orvieto, of which only the stem with the central portion of the bottom is preserved, shows the figure of a seated man, drawn in a style belonging to the late severe period and most nearly resembling the work of Brygos, especially in the wide folds of the drapery and the form of the eye. (E. D. VAN BUREN, *J.H.S.* XXXIX, 1919, p. 79–81; 2 figs.)

Reappearance of Greek Vases.—In a sale at Sotheby's, in London, February 23, 1920, of several collections of antiquities (of which an illustrated catalogue appeared), the following vases were sold: *Annali*, 1849, pl. B (Cylix by Euergetides; *Catal.* No. 242, pl. ii); *Bull. Napol.* VI, pl. 2 (formerly in the possession of Barone; *Catal.* No. 248); *Bull. Napol.* IV, pl. 5 (Amphora, Atlas and Sphinx; formerly Barone's; *Catal.* No. 266). (S. R., *R. Arch.*, fifth series, X, 1919, p. 368.)

Peleus on Mount Pelion.—In *Sitzb. Mün. Akad.* 1915, 3, pp. 10–20 ('Archäologische Bemerkungen,' II, 5), PAUL WOLTERS interprets the drawings on a black-figured Attic amphora (*Not. Scav.* 1913, p. 366, Fig. 3) as representing Peleus on Mt. Pelion in danger from wild beasts through the machinations of Acastus—a danger from which he is saved by Chiron. The sword (μάχαιρα, here represented as similar to the *espada falcata* of Spain) which Peleus received from the gods is connected with this legend, several forms of which are referred to. A jug in the British Museum (*Cat. of Vases*, II p. 285, B620; *J.H.S.* I, 1880, pl. 2) and a similar jug (evidently intended to form a pair with the other) in the possession of Mrs. L. Mond (*Burlington Fine Arts Club, Exhibition of Ancient Greek Art*, 1904, pl. 98, p. 115, No. 62) illustrate the same story.

Micon's Fourth Picture in the Theseum.—On the large red-figured crater from Orvieto in the Louvre, the picture on the reverse has been recognized as the slaying of the children of Niobe, a copy of Micon's painting in the Anaceum at Athens. It shows his peculiarity of having parts of the figures, or of the action, hidden behind the rocks, as the projecting tail of an arrow for the only sign of a fallen Niobid. The more elaborate picture of the obverse has not hitherto been satisfactorily explained, but a clue is given by P. Gardner's suggestion that the two recumbent and seated figures at the bottom in the middle are Theseus and Pirithous. The subject is the rescue of the two heroes from Hades by Heracles, who is shown above them, fresh from his exploit of overcoming Cerberus without arms or armor. Most of the other figures can be identified as Iolaus, Athena, the Dioscuri, etc., and they are all supposed to be standing in a circle or semicircle like the groups of statues of the time. An allusion of Pausanias had already been interpreted by Brunn to indicate a fourth painting by Micon in the Theseum, representing some scene connected with the close of the hero's life. This picture was probably the original of the vase painting in question, which has the same characteristic rocky ground, hiding parts of the scene. The well-known crater at Bologna with the reception of Theseus by Poseidon at the bottom of the sea, although itself a generation later, must have been painted under the influence of a similar picture by the same artist. The black background of the two vase-paintings, representing Hades and the inside of the sea, may well reproduce a dark background in the wall-paintings. The earlier mode of painting dark figures on a light ground was succeeded by painting light on dark or even dark on dark, and Micon probably employed and may even have introduced the new technique. It was used in other arts in the fifth century as in the frieze of the Erechtheum, with white marble figures on a dark blue stone ground. As Micon was an elder contemporary of Polygnotus, his painting of Hades would naturally have preceded and been the model for the latter's Nekuia in the Lesche at Delphi, and in fact certain attitudes are seen to be copied. They are both, in a sense, forerunners of Dante's Inferno. (J. Six, *J.H.S.* XXXIX, 1919, pp. 130-143; 3 figs.)

INSCRIPTIONS

Greek Epigraphy, 1915-1918.—M. N. Tod's recent survey of published work on Greek inscriptions covers the period from July 1915 to December 1918. The new material brought out was somewhat scanty, but there was a surprisingly steady flow of books and articles dealing with all aspects of the subject. Of *Inscriptiones Graecae*, the Euboean fasciculus appeared in 1916, and two fasciculi of the second or minor edition, containing Attic inscriptions, in 1916 and later. The *Sammlung der Griechischen Dialectinschriften* was completed, after thirty-two years, with a fasciculus of *addenda*, etc. to the Cretan and Sicilian inscriptions. The historical portion (Vols. 1 and 2) of the third edition of Dittenberger's *Sylloge* appeared. Vols. 3 and 4 will contain civic, religious, and private inscriptions and indices. The publication of the Greek inscriptions in the British Museum, begun in 1874, was completed in 1916 with a section containing 232 texts, many of the first importance. The Museum published also a *Guide* to its 101 select Greek and Latin inscriptions on exhibition. Also

to be noted are Nicole's *Corpus des céramistes grecs*, containing a list of the extant signatures of 131 potters and painters, and a catalogue of the stamped amphora handles and tiles in the Hermitage collection at Petrograd. There were also published some important articles on the origin of the Greek alphabet. Many new Attic inscriptions were recorded, and much study given to others already known. There is also some important new material from Argos, with discussions on the formulae of Argive decrees, the Argive calendar, etc. These and many other articles from French, German, Italian, Greek, British and American periodicals, are noticed under the headings of Peloponnesus, Northern and Central Greece, Aegean Islands, Asia Minor, and outlying regions such as Italy, Macedonia, Syria, etc. (*J.H.S.* XXXIX, 1919, pp. 209-231.)

Inscriptions from Thermon.—In *Ἀρχ. Δελτ.* I, 1916, pp. 45-58 (6 figs.) G. SOTERIADES publishes thirty-five inscriptions from Thermon. One consists of twelve decrees granting *προξενία*. Another bears the sculptor's signature *Λύσιππος ἐπόησε*, but probably does not refer to the great Lysippus. *Ibid.* pp. 280-284 K. A. ROMAIOS adds corrections to the readings of four of the inscriptions.

Inscriptions from Crete.—In *Ἀρχ. Δελτ.* II, 1917, pp. 1-12 S. A. XANTHOUDIDES publishes three Greek and two Latin inscriptions recently discovered in Crete.

Inscriptions from Beroea.—In *Ἀρχ. Δελτ.* II, 1917, pp. 144-163 (15 figs.) A. K. ORLANDOS publishes thirty-two inscriptions from Beroea and the vicinity. One dates from the third century B.C., twenty-six from the first five centuries A.D., and five are Byzantine.

An Inscription of the Year 320.—In *Ἀρχ. Δελτ.* I, 1916, pp. 195-224 (fig.) V. LEONARDOS publishes the first part of a decree of Demades of the year 320/19 found on the north slope of the Acropolis.

The Inscribed Ring from Ezerovo.—In *R. Ét. Anc.* XXII, 1920, pp. 1-21 G. SEURE discusses the ring from Ezerovo which has upon it what has been supposed to be a Thracian inscription. He shows that the words make up three proper names and that we have no inscription in the language of Thrace. It was a spoken, not-written language and is lost beyond recovery.

COINS

The Primitive Hellenism of Macedonia.—In *J. Int. Arch. Num.* XIX, 1918-1919, pp. 1-262 (20 pls.; table of weights), J. N. SVORONOS discusses the early coins of Macedonia to prove the Hellenism of the country. A preface (pp. i-xv), addressed to M. Ernest Babelon, describes in eloquent language the difficulties under which Greece labored, and the part she played, in the great war of 1914-1918.

The first part of the present article is a new edition, with few changes of the article entitled 'Numismatique de la Péonie et de la Macédoine avant les guerres médiques' (*J. Int. Arch. Num.* 1913). It contains catalogues of the silver coins ascribed to the Derronians, Laeaeans, Edonians, and other tribes and cities, and the results of the study of these hitherto "uncertain" coins is that they are all ascribed to Paenonian sources. The second part of the article (pp. 160-262) discusses the various sources from which the Greeks could obtain gold. The result reached is that the chief source was the mines of the

Pangaeus, in Paeonia. Hitherto all the early coins of gold or electrum have been ascribed to the Ionian and Carian cities of Asia Minor, and the Paeonians, who possessed the richest known gold mines, have been supposed to have struck no coins of that metal. The legends concerning the inventors of coinage are discussed, and it is found that several tales point to Paeonia as the earliest home of coinage in gold or electrum. Catalogues of early electrum coins of Paeonia (formerly attributed to cities of Asia Minor, or left "uncertain") are accompanied and followed by accounts of the vicissitudes of some of the Paeonian types under Milesian and Persian domination, of a Pangaeian monetary league, of the influence which the gold of Pangaeus exerted upon the course of Greek history, and of the policy of the Athenians, who left to their subject city Cyzicus the coinage of pieces of electrum, contenting themselves with the silver coins which were widely and favorably known.

GENERAL AND MISCELLANEOUS

The Treasure from Tiryns.—In the *Supplement* to *Αρχ. Δελτ.* II, 1917, pp. 13–21 (22 figs.) A. PHILADELPHUS describes the treasure found at Tiryns in 1916 (see *A.J.A.* XX, 1916, p. 363). Two gold rings and a hematite seal cylinder are the most interesting objects in it. One ring, which is the largest Mycenaean ring yet found, has a bezel 5.6 cm. long and 3.3 cm. wide, with a religious scene engraved upon it. At the left a goddess dressed in a long spotted chiton with sleeves and wearing a round coronet, bracelets and earrings is seated facing to the right. She holds in front of her a funnel-shaped rhyton. Beneath her feet is a footstool, and behind her chair an eagle. In front of her four demons are approaching one behind the other. They have the heads and bodies of lions, except that each has a short horn in the middle of its forehead. They are standing on their hindlegs, with the right foreleg raised to the head and the left grasping a long-necked vase. Upon their backs they appear to be wearing loose skins. In front of the goddess is a pillar supporting a vessel without handles, and in front of each of the demons is a tree with branches, intended to show the location of the scene. Above appear the sun and moon and, perhaps, stars; also branches with leaves. Below is an ornamental band similar in design to the "kyanos" frieze in the palace at Tiryns. The second ring has a bezel about half as large as the first (3.4 cm. by 2 cm.) also engraved. At the left is a gate, above which and to the left are different objects including a double axe. From the gate advance a man and a woman. The latter, who wears the usual Mycenaean dress, has her hands extended as if addressing the man. In front of these figures are two others, a man holding in his right hand a bow or spear, and a woman also with arms raised. At the right is a long curved boat. The benches, oars, mast and yards are indicated, and to the left is a large fish. In the boat, near the cabin, stand a man and a woman conversing. Two men appear to be rowing, and suspended above are five vases. In the vacant space there are various objects. The seal cylinder is 2.7 cm. long and 1.3 cm. in diameter. Upon it there are represented facing each other two bearded divinities with hoofs instead of feet wearing on their heads high conical hats or helmets. They grasp a sceptre. Their dress is peculiar consisting of short trousers extending from the waist to the knee. To the right and the left of this central group are two rows of animals, some

mythical, and a tree. Above are two flying eagles and what may be intended for the starry heaven.

Minoan Statuettes.—In 'Αρχ. Δελτ. II, 1917, pp. 164–170 (3 figs.) J. HATZIDAKIS describes three very crude statuettes of men found in different places in Crete. One is of a light green stone not found in Crete, and the other two of bronze.

The Gold Bricks of Croesus.—In 'Αρχ. Δελτ. I, 1916, pp. 111–114 (4 figs.) CH. TSOUNTAS argues that the gold bricks dedicated by Croesus at Delphi and serving as a base for his gold lion (Hdt. I, 50) were arranged in the form of a three-stepped battlement. He thinks that the dedication is to be connected with the prophecy in regard to the freedom of Sardis from capture related by Herodotus (I, 84).

Ionic Amber.—In *Rass d'Arte*, XIX, 1919, pp. 183–200 (22 figs.), C. ALBIZZATI publishes a piece of carved amber in the Morgan collection of the Metropolitan Museum, New York, the subject of which is probably Aphrodite and Anchises. The fibula, of which the amber forms the setting, was found on the coast to the north of Ancona and the carving is here shown by many comparisons to be Ionic work of the sixth century B.C. The excellent workmanship, the splendid state of preservation, and the large size of the carving render it a very exceptional treasure.

Solon.—Under the title *Solon the Athenian* (University of California Publications in Classical Philology, VI. Berkeley, 1919, University of California Press. 318 pp. 8 vo. \$3) Professor IVAN M. LINFORTH gathers together what is known of Solon. The work is divided into three parts, the first dealing with his biography; the second with the fragments of his poems which are published with a translation and commentary; and the third with a series of appendices. In these are discussed Salamis, the date of Solon's archonship, the *seisachtheia*, the laws and the axones, changes in weights, measures, currency and in the calendar, his travels, relations with Pisistratus, and his death and burial. A bibliography completes the book.

The Greek Theatre of the Fifth Century.—Professor JAMES TURNER ALLEN has published a monograph on the Greek theatre of the fifth century (see *A.J.A.* XXII, 1918, p. 449). After an introduction he discusses the Athenian theatre of the fourth and fifth centuries; argues that the fifth century orchestra had the same diameter as that of the fourth; that the stage-building was on a circular terrace with the orchestra; that the *paradoi* sloped down from this terrace at an obtuse angle away from the stage-building, thus giving rise to the terms *ἀναβαλνεν* and *καταβαλνεν*. He also takes up changes of scene and how they were effected, and the origin of the *proskēnion*. [*The Greek Theater of the Fifth Century before Christ*. By JAMES TURNER ALLEN. Berkeley, 1920, University of California Press. 119 pp.; 31 figs. 8vo. \$1.25.]

Archaeological Miscellany.—In *Sitzb. Mün. Akad.* 1916, 2, pp. 1–20, CARL ROBERT publishes 'Archäologische Miscellen.' (1) He explains Cleobis and Biton as those (Delphians) who introduced the cult of a Mother-goddess, perhaps Leto, perhaps Demeter. The inscription on their statues is not in the Argive dialect or alphabet. Whether the statue of Biton at Argos (Paus. II, 19, 5) was early enough to contribute to the error of Herodotus, is not, as yet, to be determined. (2) The description of the Chimaera (*Iliad* VII, 181–182) does not agree with works of art, as does that of Hesiod (*Theog.* 319 ff.). The

lines 181-182 in the *Iliad* are later interpolations. The prototype of the Chimaera was a Mycenaean demon, a woman with a goat's head, which was supplanted by another Mycenaean mixed form composed of lion, goat, and snake. (3) The name *polos* (πόλος) for a cylindrical ornament on the heads of female statues is quite unjustified. The πόλος is the vault of heaven. Only Pausanias (IV, 30, 4) uses the word to designate a head-ornament. His source is a commentary on Pindar or an annotated edition of Pindar, which was also used by Plutarch (*De Roman. Fort.* ch. 10, p. 322); but Pausanias misunderstood it. Any πόλος worn by the statue of Tyche to which Pausanias refers would be a stephané adorned with stars, not a cylinder.

Greek Compasses.—In *Sitzb. Mün. Akad.* 1916, 3, pp. 1-104 (12 figs.), ALBERT REHM discusses Greek compasses (*Windrosen*) and their development from the earliest times through the Ionic philosophers, Aristotle, and Timosthenes to the Hellenistic system of eight winds.

Greek Votive Offerings.—In *B. Metr. Mus.* XV, 1920, pp. 36-38 (2 figs.) H. McC. gives a general account of the Greek votive offerings in the Metropolitan Museum, New York.

Theban Politics from 404 to 396 B.C.—In *R. Ét. Gr.* XXXI, 1918, pp. 315-343 P. CLOCHÉ discusses Theban politics from 404 to 396 B.C.

Thracian Archaeology.—In *R. Arch.*, fifth series, X, 1919, pp. 333-361 (2 figs.) GEORGES SEURE continues his discussions of unknown or little known Thracian monuments and inscriptions (see *A.J.A.* XXIII, 1919, p. 176). In this article the text of twenty inscriptions is given, nine of which are Byzantine. Nearly all of these are fragmentary. Of the other inscriptions, most of which are fragmentary, five are Greek and five are Latin. All are epitaphs except one—the name (probably of a town, perhaps a transcription of a Latin ablative) Πατραλῖς and (in different letters) ΠΤΑ=π(λιθος)νά, i. e. 401. Brief descriptions of the stones and the sites where they were found, as well as some corrections of former articles, are given.

A Thracian Altar.—The upper half of a square altar found in Kara Osman in southern Bulgaria some years ago, is published by G. KAZAROW in *Arch. Anz.* 1919, col. 166-177 (7 figs.). The inscription, though incomplete, indicates the existence of a band or club of mystae, and the reliefs on the four sides of the shaft represent the various Thracian chthonic deities: Hecate, Dionysus, the goddess with patera and horn, the triad of nymphs, and the Horseman, the last shown in an attitude of combat, with shield and spear.

ITALY

SCULPTURE

The Sculptures of the Temple of Apollo at Pompeii.—In *Sitzb. Mün. Akad.* 1915, 3, pp. 20-54 (3 figs.) PAUL WOLTERS ('Archäologische Bemerkungen,' II, 6) discusses and corrects in many details the reports of the excavations carried on in the temple and precinct of Apollo at Pompeii in 1817 and at later times. From these reports and from the existing remains he reconstructs in great measure the arrangement of the statues and other sculptures of the precinct. The bronze Apollo and the bronze Artemis corresponded one to the other, likewise the marble Aphrodite and Hermaphrodite. The draped herm of

Hermes had a herm of Heracles as its mate. Only Artemis and Aphrodite had altars (the great altar was Apollo's, who, therefore, needed no other). Some of these statues were repaired in antiquity, and the arrangement as here determined may have been in part, at least, a result of the restoration necessitated by the earthquake of 62 or 63 A.D.

A Roman Relief.—In *Sitzb. Mün. Akad.* 1919, 6, pp. 1-8 (pl.) JOHANNES SIEVEKING shows that a relief in Berlin representing a Roman soldier belongs with a relief in the Museum of the University of Pennsylvania (*Not. Scav.* 1909, p. 212; *Museum Journal*, IV, 1913, p. 142; *A.J.A.* XVIII, 1914, p. 526). Both were found at Pozzuoli. Their date is the time of Hadrian. The slabs may have been taken from an earlier monument (of Domitian?), for on the back of the Philadelphia fragment is an erased inscription. They probably served as sheathing for a pedestal.

VASES

Etruscan Vases.—In *Mél. Arch. Hist.* XXXVII, 1918-1919, pp. 106-178 CARLO ALBIZZATI discusses twenty-nine examples of red-figured Etruscan ware, now in the Museo Gregoriano and elsewhere, which he believes were made in Vulci between 370 and 330 B.C. He distinguishes among them the work of three master craftsmen.

Vases from Lower Italy.—In *Mus. J.* X, 1919, pp. 217-225 (8 figs.) S. B. L(UCE) publishes a Messapian crater, a Peucetian crater, a Daunian crater and cup, and four specimens of "local Apulian" ware in the Museum of the University of Pennsylvania.

Orphism and Italiote Vases.—In *Rend. Acc. Lincei*, XXVII, 1918, pp. 333-355 G. PATRONI, defends the views advanced by him in *Rendiconti del R. Istituto Lombardo*, 1917 ('Eros e Sirena') against the attacks of an anonymous writer in the *Rivista Indo-greco-italica* of Naples. He maintains that he is there falsely charged with having attempted to prove that Orphism as a cult had an influence over Italiote artists comparable with that which it exerted in Attica; that what he had meant was that such beliefs, like other philosophical teachings, were to be taken into account as one among various influences operative there. He insists that the existence of utensils and furnishings of ordinary life in tombs or graves is not inconsistent with the Dionysiac and Elysian beliefs of Orphism and assails his critic's choice of vases in support of his own point of view as utterly misleading.

INSCRIPTIONS

The Cistiferi of Bellona.—In *C. R. Acad. Insc.* 1919, pp. 256-260 F. CUMONT publishes additions and corrections to the important inscription relating to the cult of Bellona recently found at Madaura (see *ibid.* 1918, pp. 312 ff.; *A.J.A.* XXIII, 1919, p. 320). The restoration *halstiferorum* is shown to be incorrect. Perhaps *cīsthiferorum* is what was written. He interprets FANAS as *fana(ticu)s* or *fan(aticus)*, a *s(acris)*.

The Tablet at Leeuwarden.—In *C. R. Acad. Insc.* 1919, pp. 265-282 E. CUG discusses and proposes interpretations in the wax tablet found at Tzum in northern Holland and now in the museum at Leeuwarden (see Vollgraff, *Annales de la Société de Frise*, 1917, pp. 71-101; *Mnemosyne*, XLV, pp. 341-

352; and Boissevain, *Mnemosyne*, XLVI, pp. 201-215). It is part of a triptych. The Latin inscription on one leaf has to do with the sale of an ox; the other contains the names of four people who sealed the act. It probably dates from the time of Claudius.

The Cippus Abellanus.—In *Sitzb. Mün. Akad.* 1915, 10, pp. 1-68, LEOPOLD WAGNER reprints the text and Latin translation of the inscription on the *cippus Abellanus* and discusses various questions connected therewith. The various theories concerning the *meddix tuticus* are reviewed. He may have been an exceptional official, like the dictator in Rome, or one of two colleagues (like the Roman consuls), though that would seem to imply inferiority on the part of his colleague. The word *meddix*—which seems to mean *magistratus* in general—may have changed its meaning as time went on, like the word *praetor* in Latin. The *meddix degetasius* of the cippus may have been the equivalent of a Roman *quaestor*. The provisions relating to the use of the treasure and lands of the temple of Heracles prove that the ideas of federation and of corporate rights of states were similar to those of early Rome, as well as to those of Greece and even of Germany. The temple of Heracles, like the land belonging to it, is regarded as the property, not of the god, but of the Nolans and Abellans. Property and objects connected with worship might belong to the deity, to the state, or to individuals. In Rome, from about 50 B.C., or earlier, until Christianity became the state religion, the theory prevailed that *res sacrae* could not be private property. Elsewhere, and at Rome itself at different times, both law and practice varied. Such variations are here discussed.

The Inscribed Etruscan Mummy Bands.—In *Rend. Acc. Lincei*, XXVIII, 1919, pp. 69-84 ELIA LATTES essays to cast light upon the interpretation of the inscribed Etruscan mummy bands at Agram. (Cf. Herbig, 'Die Etr. Leinwandrollen des Agramer National Museum' in the *Abh. Mün. Akad.* XXV, 1911, pp. 3-44.)

• COINS

Mark Antony's Coinage at Anagni.—A. W. VAN BUREN suggests that the statement by Servius (on *Aen.* VII, 684) that Antony struck coins in the name of Cleopatra at Anagni may be due to a false reading of *Armenia* as *Anagnia* (cf. Plate CXV, No. 15, of the British Museum *Catalogue of Coins of the Roman Republic*). Other attempts to account for the surprising statement of Servius are mentioned. (*Num. Chron.* 1919, pp. 254-255.)

Origins of Roman Imperial Coinage.—As against Mommsen and Grueber, H. MATTINGLY argues that the imperial coinage was not founded on the old senatorial coinage of Rome, but on the right of coinage occasionally exercised by generals in the field in Republican times. Augustus derived his authority for the coinage of money from his *imperium* in the provinces, and established his chief mint accordingly not at Rome but at Lyons. He merely left the token coinage in *aes* under control of the senate. (*Num. Chron.* 1919, pp. 221-234.)

Coinage of Aurelian.—In opposition to the view of Mr. Sydenham, in his articles on the Roman monetary system already mentioned in this journal, PERCY H. WEBB argues that Aurelian did not attempt to reform the existent system, but to restore it in better shape. The silver-washed radiate pieces were intended to be the direct successors of the original *antoninianus* of Cara-

calla. The marks XX, XXI, XX.I, KA, etc., are to be interpreted as meaning that twenty of these (token) coins are equal to one *aureus*. The coins marked VSV are certainly not *quinarii*, and the mark cannot be an expression of value. Sir Arthur Evans is probably right in reading it as *Vota Solvta Quinquennialia*. (*Num. Chron.* 1919, pp. 235-243.)

GENERAL AND MISCELLANEOUS

The Origin of the Etruscans.—In *Rend. Acc. Lincei*, XXVIII, 1919, pp. 173-182 ALESSANDRO DELLA SETA, admitting that the two ancient theories of a Lydian or a Pelasgian origin for the Etruscans have little basis in fact, as against linguistic and cultural data, argues that the Pelasgian theory arose from a misread passage of Herodotus (I, 57) where Κρηστών (in Thrace) and Κρηστωνιῆται have been emended, so Della Seta thinks, by Hellanicus himself (Dionysius Halicarnassensis, I, 28, 29) whom he calls a Pan-Pelasgist, into Κρότων and Κροτωνιῆται. Some have believed that Κρότων was the original reading and that this was changed to Κρηστών under the influence of Thucydides, IV, 109, but convincing arguments are here adduced showing that Herodotus thinks of the Pelasgians as an Aegean race. Dionysius' own belief is that the Etruscans were autochthons.

Documentary Evidence for Early Roman History.—In *Rend. Acc. Lincei*, XXVIII, 1919, pp. 85-99 and 127-140, CORRADO BARBAGALLO treats of the documentary evidence on which the historians of early Roman times based their work, in its bearing on the authenticity of the traditional accounts. He discusses the passage in which Livy (V, 40) describes the burying and carrying away of the most important documents at the time of the sacking of the city by the Gauls, and emphasizes the fact that the Capitol did not fall into the hands of the invaders. The temples, bridges, aqueducts, walls and public buildings, the statues of famous men, the *imagines* of their ancestors must, he feels sure, have been mute witnesses to the Romans of their earlier history. In the second article the coins, inscriptions, pontifical, royal and civil records, decrees of the senate, acts of comitia, etc., private archives, and documents existing outside of Rome, are separately treated and discussed.

The Roman Mile-Stones of Syria.—Under the title *Die römischen Meilensteine der Provinzen Syria, Arabia und Palaestina* (Leipzig, 1917, Hinrich. 102 pp.; map; reprinted from *Z. D. Pal.* V. XL, pp. 1 ff.) Dr. PETER THOMSEN discusses the Roman roads in Syria, Arabia and Palestine and comments upon 306 Roman mile-stones so far recorded.

The Date of the Removal of the Colossus of Nero.—In *Mél. Arch. Hist.* XXXVII, 1918-1919, pp. 285-296 F. PRÉCHAC attempts to show that the date of the removal of the Colossus of Nero from its original site, in order to make more room for the temple of Venus and Roma, fell between January first and April twenty-first in the year 128 A.D.; and his arguments carry much weight.

The Lupercalia and the Purification of the Virgin.—In *R. Hist. Rel.* LXXIX, 1919, pp. 1-13 J. TOUTAIN returns to the old problem of the connection between the Roman Lupercalia and the festival of the Purification of the Virgin suggested by the Venerable Bede. He points out resemblances between the two festivals.

Roman Surgical Instruments in Baltimore.—About 1912 there was discovered at Colophon a collection of thirty-six surgical instruments which had apparently belonged to a Roman physician of the first or second century A.D. With one exception they are of bronze, and include knives, forceps, probes, cupping-vessels, a balance, a bow drill, etc. The drill is an instrument rarely found, and was used in injuries to the skull. The collection was presented to Johns Hopkins University six years ago and is now on exhibition in Gilman Hall. (Baltimore *Evening Sun*, May 21, 1920.)

Roman Bronze Pendants.—In *Proc. Soc. Ant.* XXX, 1918, pp. 54–63 (15 figs.) R. A. SMITH discusses a serrated iron nose-band for a horse and connects with it a series of Roman bronze pendants of peculiar shape. The latter were probably charms.

An Ornamental Lance Head.—The signum of a *beneficiarius consularis*, or some other member of the staff of a *legatus consularis*, is seen in an ornamental lance head now in the museum at Wiesbaden. (E. RITTERLING, *Bonn. Jb.* 125, 1919, pp. 9–37.)

The Harbor of Cologne in Roman Times.—The harbor of Cologne in Roman times is the subject of an investigation by H. J. LUECKGER in *Bonn. Jb.* 125, 1919, pp. 163–177 (pl.).

FRANCE

The Antiquities of Roussillon.—In *R. Ét. Anc.* XXI, 1919, pp. 271–289 R. LANTIER gives a brief account of the scanty remains of antiquity found in the old province of Roussillon, *i.e.*, in the department of the Pyrénées-Orientales.

Bronzes in the Museum at Saumur.—In *R. Arch.*, fifth series, X, 1919, pp. 277–293 (67 figs.), M. VALOTAIRE publishes thirty-seven bronzes in the museum at Saumur. These were found at various times in the neighborhood of Saumur, for the most part near La Dive. They include ten deities, six heads, an engraved mirror (of coarse work, and badly oxidized), fourteen animals or parts of animals, most of which adorned utensils, two phalli, and a few other objects. All are of small size, and all probably of Gallo-Roman origin.

Bronze Axes found at Saint-Pierre-Église near a Dolmen.—In *R. Arch.*, fifth series, X, 1919, pp. 363 f. (fig.) ROBERT FORRER mentions the discovery, in 1722, near Sundhofen, not far from Colmar, of about thirty bronze lances, which have been scattered and for the most part melted, also the discovery, in 1822, of arms and ingots of bronze at Stephansfelden, near Brumath. These were lost in the bombardment of Strasbourg in 1870. He publishes a bronze axe with straight sides (13 cm. long, 6.2 cm. wide), on which is a paper label, written apparently not far from 1800. This gives the information that the axe was found at Saint-Pierre-Église near a dolmen, à la Trigalle, with forty analogous objects. The place is ten to fifteen miles east of Cherbourg, in the department of la Manche. Evidently the axe was part of a store of a merchant or caster of bronze in the First Bronze Age.

The Gallic Word Arcantodan.—In *R. Ét. Anc.* XXI, 1919, pp. 263–270 J. LOTH discusses the word *arcantodan* found on certain Gallic coins and concludes that it is equivalent to *magister monetæ*. *Arcanto* means silver or money.

GREAT BRITAIN AND IRELAND

Antiquities of the Bronze Age.—In *Proc. Soc. Ant.* XXX, 1918, pp. 166–183 (8 figs.) W. J. HEMP discusses various antiquities dating chiefly from the Bronze Age and found at different times in southeastern Carnarvonshire and north-western Merionethshire. Among them are weapons, late Celtic terrets, a gold collar, a sickle, a bucket, etc.

Flint Implements from the Test.—In *Proc. Soc. Ant.* XXX, 1918, pp. 20–27 (10 figs.) W. DALE discusses the flint implements recently discovered in the gravel beds of the river Test at Romsey. *Ibid.* pp. 27–31 R. A. SMITH makes various observations.

A Rare Type of Flint Implement.—In *Proc. Soc. Ant.* XXX, 1918, pp. 160–165 (3 figs.) R. A. SMITH discusses a rare type of flint implement with worked edges, facettèd butt and prominent bulb, found at Grime's Graves, Norfolk, in 1914. Many other specimens have been excavated in the cave of St. Bre-lade, Jersey, belonging to the Mousterian period, but elsewhere they are very rare. The type was apparently confined to a definite period.

A Roman Gold Fibula.—In *Proc. Soc. Ant.* XXX, 1918, pp. 184–186 (fig.) W. J. HEMP discusses a Roman gold fibula of crossbow shape, 2 $\frac{3}{4}$ inches long, and 4 inches wide, from Carnarvon.

A Roman Relief at Colinton.—In *Proc. Soc. Ant.* XXX, 1918, p. 237 G. MACDONALD calls attention to a sculptured slab which has been built into a garden wall at Colinton for more than a hundred years. It proves to be Roman and a dedication to the Mother Goddesses. It is of good workmanship and the first thing of the kind noted north of the Tweed.

The Ancient Salt Works of Essex.—In *Proc. Soc. Ant.* XXX, 1918, pp. 36–53 R. A. SMITH discusses the salt works of pre-Roman times on the Red Hills of Essex, and the ancient methods of making salt.

Irish Serpentine Latchets.—In *Proc. Soc. Ant.* XXX, 1918, pp. 120–131 (16 figs.) R. A. SMITH discusses Irish serpentine latchets tracing developments in form. They are in the shape of a letter S prolonged, and usually have a disk at one end. They were made for five or six centuries ending with the eighth, and have been found in nearly all parts of Ireland. They were used for fastening the clothes.

Cheek-Pieces for Bridle-Bits.—In *Proc. Soc. Ant.* XXX, 1918, pp. 187–189 (fig.) E. C. R. ARMSTRONG illustrates and discusses seven cheek-pieces for bridle-bits in the Museum of the Royal Irish Academy, Dublin.

NORTHERN AFRICA

Carthaginian Civilization.—The fourth volume of Professor GSELL's work on the history of North Africa (see *A.J.A.* XXII, 1918, p. 452) is devoted to the civilization of ancient Carthage. He discusses agriculture, industrial activity (pottery making, working in metal, gem cutting), commerce, the manners and customs of the Carthaginians, their religious life (including an account of their gods and cults, cult symbols, sacred places, priests and priestesses, festivals, etc.), funeral customs, and finally the place of Carthage in history. [*Histoire ancienne de l'Afrique du nord*. Par STÉPHANE GSELL. Tome IV. *La civilisation carthaginoise*. Paris, 1920, Hachette. 515 pp. 8 vo. 25 fr.]

EARLY CHRISTIAN, BYZANTINE AND MEDIAEVAL ART

GENERAL AND MISCELLANEOUS

The Excavations at Bawit.—In *C. R. Acad. Insc.* 1919, pp. 243–248 G. SCHLUMBERGER reports briefly from the notebooks of Jean Maspero on the excavations carried on in 1913 at the fortified convent of Bawit (see *A.J.A.* XVIII, 1914, p. 118). The frescoes are important for the history of Byzantine art. The convent was probably destroyed in the seventh century.

The Byzantine Church on the Areopagus.—In *Ἀρχ. Δελτ.* II, 1917, pp. 119–143 (17 figs.) G. A. SOTERIOS discusses the remains of the church of Saint Dionysius the Areopagite on the north side of the Areopagus.

The Church of Saint Nicholas at Delvinos.—In *Ἀρχ. Δελτ.* I, 1916, pp. 28–44 (19 figs) P. VERSAKIS discusses the Byzantine church of Saint Nicholas near Delvinos, Northern Epirus.

The Stronghold of Chloumoutzi and Its Mint.—In *J. Int. Arch. Num.* XIX, 1918–1919, pp. 273–279 (2 pls.; fig.) GEORGE SOTIRIOU describes a curious furnace found in the strong castle of Chloumoutzi which dominates the peninsula of Chelonata, in Elis (see *A.J.A.* XXIV, 1920, p. 94). Inasmuch as the castle—apparently called also Clarentia, Château Tournois, and Castle Tornese—contained a mint, the conclusion is obvious that the furnace in question was built for the purpose of melting metal for coinage. The castle was built between 1246 and 1278.

Arabic Art in Egypt.—The general characteristics of Arabic art and its contrast with the art of the ancient Egyptians forms the subject of an essay by B. DOBRÉE in *Burl. Mag.* XXXVI, 1920, pp. 31–35 (fig.).

Syrian Silverwork.—In *Gaz. B. -A.* I, 1920, pp. 173–196 (pl.; 7 figs.), L. BRÉHIER, taking as principal basis the discoveries of silver treasures made in recent years near Antioch, traces the development of the silversmith ateliers of that metropolis. Despite marked differences in the pieces, there are certain consistent traditions, such as realistic treatment and preference for coloristic effects on the repoussé work, obtained by the application of gold and enamel. Changes in style were gradual, but two epochs may be distinguished: the first down to the fifth century, was dominated by the tradition of picturesque bas-relief and of Hellenistic art (it is in giving realistic treatment to religious scenes that Syrian artists marked a new direction in religious art); the second, from the fifth century to the Arab invasion, is characterized by a more schematic, monumental treatment.

The Churches of Servia.—In *Proc. Soc. Ant.* XXX, 1918, pp. 10–14 T. G. JACKSON points out that the churches of Servia fall into three groups: (1) those built by Stephen Nemanja and his immediate successors; (2) those built in the fourteenth century and associated with the names of Stephen Urosh and his queen; and (3) those erected at the end of the Servian kingdom by Lazar and the despots in the northern district. The first group although possessing certain eastern features show Dalmatian influence and are more Romanesque than Byzantine. The west doorway in the church at Studenitzza, for example, has a figure of Christ between adoring angels in the tympanum. A peculiar feature in many Servian churches (*e.g.* in the church at Hilendar founded in 1196) is a pronaos of two bays with three aisles. Brick arches and cornices and bands of brickwork in the masonry, found here for the first time in Servia,

became a distinctive feature of Servian architecture. A remarkable church is that built about 1321 by King Urosh Miljutin. The church at Ravanitza is typical of the third group. It has a central dome surrounded by smaller tower domes, and is barrel-vaulted four ways in a cross plan. The exterior is richly decorated with arcading, twisted colonnettes, architrave and friezes carved with fretwork, carved borders to doors and windows, traceried rose-windows, and geometrical patterns in brick.

A Tower of Ivory.—An ivory ciborium with relief figures of the twelve apostles, in the Morgan collection, Metropolitan Museum of Art, New York, is assigned by J. BRECK in *Art in America*, VIII, 1920, pp. 116–123 (pl.) to Syrian workmanship of the fifth century. A. M. FRIEND, Jr. (*ibid.* p. 144) would, however, attribute the ivory to a Rhenish atelier of the eleventh century.

Burgundian Buckles.—In *Proc. Soc. Ant.* XXX, 1918, pp. 63–87 (30 figs.) Sir MARTIN CONWAY discusses several Burgundian buckles adorned with a number of designs or scenes, and dating from the seventh or eighth century. They were charms. Some of the types are of Coptic derivation.

Ancient Subjects in Tapestry.—In *R. Arch.*, fifth series, X, 1919, pp. 294–328 (index, pp. 328–332), L. ROBLOT DELONDRE concludes (see *A.J.A.* XXII, 1918, pp. 226 f.; XXIII, 1919, p. 195) his list of ancient subjects represented in tapestries. The subjects here included are scenes from Greek, Roman, and Jewish history.

Early Christian, Mediaeval and Renaissance Glass.—In *Art Bulletin*, II, 1919, pp. 87–119 (4 pls.), G. A. EISEN discusses the development of work in glass, following the various types from the earliest period of glass-making through Early Christian, Mediaeval, and Renaissance times and describing the different kinds of glass and the methods employed in making them.

ITALY

A Great Contemporary of Giotto.—In *Burl. Mag.* XXXV, 1919, pp. 229–240 and XXXVI, 1920, pp. 4–11 (7 pls.). O. SIRÉN studies the artistic activity of the St. Cecilia Master, to whom he attributes a new work, the full length figure of St. Paul owned by the Bourgeois Gallery, New York. Evidence is also presented for the identification of the St. Cecilia Master with Buonamico Buffalmacco.

Two Sienese Paintings.—In *Art in America*, VIII, 1920, pp. 103–107 (pl.) G. H. EDGELL publishes the little Crucifixion by Simone Martini in the Fogg Museum of Art, Cambridge, Massachusetts, which he dates about 1335. It is suggested also that the small Crucifixion with the Madonna and St. John in the Boston Museum of Fine Arts, where it is attributed to Lippo Memmi, is by a follower of Simone Martini.

S. Giovanni at Assemini.—In *Boll. Arte*, XIX, 1919, pp. 117–132 (8 figs.), F. GIARRIZZO studies the style and origin of the little church at Assemini, which he shows to be the one referred to in Greek inscriptions as early as the middle of the tenth century. The church is clearly Byzantine in derivation of style and may be dated in the last years of the ninth or early years of the tenth century. Some fragments of carved marble from its altar show closest analogy to works on the continent in the seventh and eighth centuries and were prob-

ably made by a Greek, or one of the Greek school, for some monument constructed in or near Assemini in those centuries and later transferred to the church of S. Giovanni.

Monuments of Sulmona.—The church and palace of SS. Annunziata in Sulmona are described in all their vicissitudes by P. PICCIRILLI in *Rass. d'Arte*, XIX, 1919, pp. 119–137 (32 figs.). The original church belonged to the early fourteenth century, but two earthquakes, one in 1456 and another in 1706, necessitated much rebuilding. The palace shows results of three periods of building, which inscriptions date in 1415, 1483, and 1519.

San Flaviano.—The ancient temple of San Flaviano and two nearby churches are described by V. BINDI in *Rass. d'Arte*, XIX, 1919, pp. 168–182 (18 figs.). The date of the original building of the temple is not known, but it was already famous in the eighth century. Remains of the twelfth and following centuries are still extant. Many pieces of rich ecclesiastical work of the goldsmith's art attest the splendor of the temple in the fourteenth and fifteenth centuries.

Painting in Apulia.—In *L'Arte*, XXII, 1919, pp. 149–192 (26 figs.), M. SALMI gives a contribution to the history of painting in Apulia from the early fourteenth century to the middle of the sixteenth, tracing the successive dominance of Byzantine, Sienese, and Venetian characteristics. Particular attention is given to the trecento frescoes in the church of S. Caterina in Galatina.

SPAIN

Spanish Miniatures.—In *Rass. d'Arte*, XIX, 1919, pp. 149–155 (5 figs.) N. AITÁ takes up the problems connected with the codex of the *Cantigas* of Alfonso El Sabio, now in the Biblioteca Nazionale, Florence. There are proofs that the miniatures were painted in Spain in the thirteenth century, and yet the traces of Italian characteristics are so clear in them as to make it almost certain that already before the fourteenth century the influence of Italian painting was getting into Spain.

The Monastery of Siresa.—A history of the monastery of Siresa, Aragón, and a study of its unpublished church are given in *B. Soc. Esp.* XXVII, 1919, pp. 270–305 (6 pls.; fig.), by R. DEL ARCO. The church, dating from the eleventh century, is in the form of a Latin cross with a single apse, and has had in succeeding centuries additions of interesting architectural, sculptural, and pictorial decoration.

The Castle of Zorita de los Canes.—In *B. Soc. Esp.* XXVII, 1919, pp. 90–106 (2 pls.; 2 figs.) L. T. C. y BALBÁS writes on one of the old fortresses important in the mediaeval life of Spain. The castle of Zorita de los Canes, located at the meeting of the Tajo and Badujo, is first mentioned in the ninth century in Arab annals; but no traces of the earliest epochs remain in the ruins today. The chapel, a single aisled type with semicircular apse and a vaulting which shows early Gothic influence, belongs to the twelfth century; but the atrium, which gives access to it, is later, dating from the thirteenth century.

Basilica and Church in Val-de-Dios.—In *B. Soc. Esp.* XXVII, 1919, pp. 77–89 (4 pls.), J. F. MENÉNDEZ describes the basilica of San Salvador and the church of S. Maria la Mayor in Val-de-Dios. The former was consecrated in 892; the latter dates from 1238. The exterior of San Salvador has not been greatly

changed in the course of the centuries; but the interior was covered in the sixteenth century with a pseudo-classic decoration. The walls, vaults, and arches, now cleaned of these additions, appear covered with a unique painted geometrical decoration. The derivation of the style of the basilica is much disputed. The architectural forms seem to bear closest resemblance to Visigothic examples. For the paintings there are no parallels in Visigothic buildings in Spain, but certain symbols used in them, such as that of the half moon, suggest the influence of Christian Arabs. The church of S. Maria la Mayor, which was the most magnificent in the principality of Asturia, has suffered little change, with the exception of eighteenth century baroque additions to the interior.

FRANCE

Some Romanesque Capitals.—In *Burl. Mag.* XXXVI, 1920, pp. 11–18 (2 pls.; fig.), D. McDougall gives an interpretative description of the choir capitals of the eleventh or twelfth century church of S. Pierre-en-Haute, Chauvigny (Poitou). Though the execution of these figured capitals is crude and barbaric, they compare favorably in interest and fertility of imagination with the most skilled work of the period.

Manuscripts and Textiles.—An example of the identification of date and provenance of textiles by means of comparison with manuscript miniatures is given by I. ERRERA in *L'Arte* XXII, 1919, pp. 193–196 (3 figs.). Two pieces of textiles in the cathedral of Acquisgrana are decorated with peculiar figures of ducks that are strikingly like one from a French miniature of the eighth century. The conclusion from this and documentary evidence is that the textiles originated in the north—France or Belgium—in the eighth century, and that fine textiles, as well as illuminated manuscripts were produced in monasteries.

The School of Godfroid de Claire.—In the sixth and seventh sections of his study of enamels of the school of Godfroid de Claire (*Burl. Mag.* XXXVI, 1920, pp. 18–27 and 128–134; 4 pls.; 3 figs.) H. P. MITCHELL discusses the *corona lucis* in the Minster-church at Aix-la-Chapelle—a late twelfth century work by Wibert, a pupil of Godfroid—and the most interesting of all the works of the school, the pedestal of a cross from the Abbey of St. Bertin, now in the museum at St. Omer. This pedestal is attributed to Godfroid himself and may be dated about 1160.

HOLLAND

The Van Eycks.—In *Gaz. B.-A.* I, 1920, pp. 77–105 (pl.; 10 figs.), P. DURRIEU presents proof of a relationship of the Van Eycks with Jean de Berry. Part of the miniature work on the *Heures de Turin*, as already pointed out by the author, was done by the brothers, with Guillaume IV of Bavaria, favorite nephew of Jean de Berry, as patron. Further, it seems possible to identify a portrait of the duke in the Ghent altarpiece. But the best evidence of the relationship is given by the diptych in the Hermitage, with paintings of Calvary and the Last Judgment. This, after careful examination, is attributed with certainty to the Van Eycks—and it was the property of the duke of Berry.

Hans Memling.—In *Art in America*, VIII, 1920, pp. 107–116 (3 pls.) M. J. FRIEDLANDER writes on the paintings by Hans Memling in American collections. These include several examples in the Altman collection in the Metropolitan

Museum, New York; the Portrait of a Young Man, owned by Mr. John Willys, Toledo; the Archer, owned by Mr. Michael Dreicer, New York; the Man with a Pink, in the collection of Mr. J. P. Morgan, New York; a Madonna, in the collection of Mr. Martin A. Ryerson, Chicago; and Christ as the Man of Sorrows and the Virgin of an Annunciation, in the collection of the late Mr. John G. Johnson, Philadelphia.

GERMANY

The Illustrated Manuscript of Wolfram's Willehalm.—In *Sitzb. Mün. Akad.* 1917, 6, pp. 1–31 (2 pls.), KARL V. AMIRA describes the fragments (18 in number) of the “grosse Bilderhandschrift von Wolfram's *Willehalm*” (cf. *ibid.* 1903, pp. 213–240), which have come to light in Meiningen. With the exception of two fragments in Nuremberg, all known fragments of this manuscript are now in the Staatsbibliothek in Munich. The illustrations contain only persons and things mentioned in the text. There is little attempt to produce beautiful pictures, for the illustration of the text is the painter's only object. Details of costume fix the date between 1250 and 1275 A.D.

The Neubauer Chronicle.—In *Sitzb. Mün. Akad.* 1918, 9, pp. 1–51 (6 pls.), KARL V. AMIRA describes a chronicle of Nuremberg, which contains many notes concerning other places, and also 467 illustrations. The chronicle is in the possession of Dr. Chr. Nuhlen, in Murnau. It was compiled and written chiefly, if not entirely, by Wolff Neubauer, and the latest item in it refers to the year 1616. The items are arranged with little regard to chronological sequence and the dates given are frequently wrong. Of the illustrations about 140 are portraits, but many of these can be intended only symbolically (e.g. Mohammed, Charlemagne, etc.). Others resemble more or less closely the known portraits of historical personages; but in these, as also in those illustrations which represent various scenes and actions, symbolism, rather than realism, is the aim of the draughtsmen.

GREAT BRITAIN

The Coronation of the Virgin on a Fourteenth Century Ivory.—In *Proc. Soc. Ant.* XXX, 1918, pp. 239–241 Lieut.-Col. CROFT LYONS publishes an ivory carving of the fourteenth century about $4\frac{1}{2}$ inches high and $3\frac{3}{4}$ inches wide said to have been found in the ruins of Hastings Castle. There is a group of ten figures beneath a canopy. The subject is the Coronation of the Virgin.

An Enameled Lid.—In *Proc. Soc. Ant.* XXX, 1918, pp. 92–97 (fig.) Miss JOAN EVANS discusses the enameled lid of a nautilus cup in the possession of All Souls College, Oxford. It dates from the end of the thirteenth century.

The First Cathedral Church of Canterbury.—In *Proc. Soc. Ant.* XXX, 1918, pp. 136–156 (6 fig.) W. ST. JOHN HOPE discusses the plan and arrangement of the first cathedral church at Canterbury.

RENAISSANCE ART

ITALY

St. Jerome by Masolino.—A painting of St. Jerome in the collection of Professor Frank J. Mather, Jr., Princeton, N. J., is attributed by R. OFFNER,

Art in America, VIII, 1920, pp. 68-76 (pl.), to Masolino on the basis of its style and its relationship to other works by that artist. It seems to belong to the period between 1423 and 1426 and was probably painted on the occasion of the birth of a son to the family whose stemmi appear on the picture.

Piero di Cosimo.—Two little known tondos in Sweden by Piero di Cosimo are studied by T. BORENIUS in *Burl. Mag.* XXXVI, 1920, pp. 103-104 (2 pls.) One of these, the Virgin and Child, is in the possession of Dr. Osvald Sirén; the other, the Virgin and Child with St. John, is in the National Museum, Stockholm.

Lorenzo di Niccolò.—A most characteristic work by Lorenzo di Niccolò, S. Giovanni Gualberto and his enemy before the Crucifix in S. Miniato, recently acquired by Mr. Raymond Wyer, is published by O. SIRÉN in *Burl. Mag.* XXXVI, 1920, pp. 72-78 (2 pls.). The date of the work probably lies in the first decade of the fifteenth century. A bibliography of the artist is appended to the article.

Auto-Ritratti of Francia.—In *Art in America*, VIII, 1920, pp. 167-172 (pl.), E. E. C. JAMES calls attention to the self-portraits of Francesco Francia, which are represented by a painting sold at Christie's in 1911 and one in the collection of G. L. Koppel, Berlin.

Gallows-Studies by Pisanello.—In *Burl. Mag.* XXXVI, 1920, pp. 305-309 (pl.), G. H. HILL writes on the various studies by Pisanello of hanging corpses. These appear in Pisanello's fresco of St. George in S. Anastasia, Verona, and in two drawings, one in the British Museum, the other recently acquired by Mr. Henry Oppenheimer from the sale of the Marquis of Lansdowne's drawings.

Pisanello Drawings.—In *L'Arte*, XXIII, 1920, pp. 5-23 (10 figs.), M. KRASCENINNIKOVA publishes the first installment of her study of the drawings of Pisanello in the Vallardi collection of the Louvre, treating the authentic drawings in four divisions: studies for frescoes of the church of S. Anastasia, Verona; studies for frescoes of S. Giovanni Laterano; studies for medals; and sketches of figures independent of pictorial compositions or medal designs.

Antonio da Fabriano.—In *Rass. d'Arte*, XIX, 1919, pp. 201-202 (2 figs.), A. COLASANTI publishes a triptych in the municipal gallery of Gualdo Tadino which has hitherto been almost entirely unnoticed. Stylistic considerations indicate Antonio da Fabriano as its author. The subject is St. Anne teaching the Virgin to read, with two saints at the sides. The evidence of northern influence in the figures of the saints is one of the most important features of the triptych.

Priamo della Quercia.—In *Rass. d'Arte*, XIX, 1919, p. 233, documentary proof is given by M. BATTISTINI for the attribution (which was made on stylistic evidence by G. de Nicola, *ibid.* Nos. 5 and 6, 1918) of the painting of S. Antonio enthroned, with other saints, in S. Antonio, Volterra, to Priamo della Quercia.

Guido Mazzoni.—In *Rass. d'Arte*, XIX, 1919, pp. 231-232, new documents that concern Guido Mazzoni are given, and more promised in a forthcoming book, by G. BERTONI and E. P. VICINI.

Frescoes of the Trinci Palace at Foligno.—A description of the fragmentary paintings in the Trinci Palace at Foligno, with a study of their origins and style, is given by M. SALMI in *Boll. Arte*, XIII, 1919, pp. 139-180 (18 figs.). The decorations are confined principally to three compartments: the loggia

with the story of Romulus and Remus, the room of the Liberal Arts and the Planets, and the hall of the Giants. The hands of three distinct artists, each of whom may have had assistants, are clearly recognized in the frescoes. The first, with a local training, knew the art of Gentile da Fabriano; the second united with the training he got as collaborator and, possibly, pupil of the first, the influence of French miniature painting; the third, while showing some affinity to the other two, followed closely Ottaviano Nelli. The name of the first, only, can be safely conjectured. He is the same as the author of frescoes in the church of Pietrarossa and is probably to be identified as Giovanni di Corraduccio. Verses which appear below the episodes on the walls are appended to the discussion.

Italian Paintings in France.—In *Rass. d'Arte*, XIX, 1919, pp. 157–167 (14 figs.) P. BAUTIER writes on paintings belonging to towns in the invaded part of France, especially to the Douai and Valenciennes museums, which were taken to Brussels for protection before the close of the war.

The Vivarini.—In *L'Arte*, XXII, 1919, pp. 226–227 (fig.), A. VENTURI publishes a polyptych in the convent of Sant' Eufemia in the island of Arbe which gives an example of the collaboration of Antonio and Bartolomeo Vivarini, by whom it is signed. It is similar to their polyptych in the Bologna picture gallery, but shows a later step, in which Bartolomeo is more independent of his brother and in which the movement of the figures has become freer.

Portraits by Tintoretto.—A study of some of Tintoretto's portraits is published by D. v. Hadeln in *Jb. Preuss. Kunsts.* XLI, 1920, pp. 32–45 (7 figs.). Two of these, the portrait of Giovanni Paola Cornaro in Ghent and the portrait of Ottavio de Strada in Stargard are dated, the former in 1561, the latter in 1567; and a third picture, the self-portrait in the Louvre, is substantially dated by the engravings made after it by Giesbert van Veen, which represents the painter in the year 1588.

Della Robbia Documents.—In *L'Arte*, XXII, 1919, pp. 105–112 and 242–248 (fig.), R. G. MATHER publishes his second and third series of new documents concerning the Della Robbia, with a facsimile reproduction of a manuscript with the handwriting of Andrea della Robbia and his signature. This document is of further interest in that it contains the names written by Andrea of famous contemporaries, such as Cosimo Roselli, Antonio Pollaiuolo, and Verrocchio.

Raphael Documents.—In *L'Arte*, XXII, 1919, pp. 197–200 (fig.), A. VENTURI gives, besides a list of new documents relating to Raphael, a résumé of those previously published and reproduces in facsimile the most precious document written by Raphael, a letter to his uncle, Simone Ciarla, April 21, 1508. This is now in the Vatican Library.

Raphael and Dante.—Raphael's interpretation of Dante in his paintings and his assimilation of the poet's creations to his own characteristics and those borrowed from other sources are discussed by O. FISCHER in *Jb. Preuss. Kunsts.* XLI, 1920, pp. 83–102 (12 figs.). The earliest painting based on Dante is the St. Michael in the Louvre. Later, Dante was the painter's guide in the composition of the Disputa and in the designs for the dome of the Chigi chapel in S. Maria del Popolo.

The Birthday of Raphael.—In *L'Arte*, XXIII, 1920, pp. 1–4 (fig.), A. ZAZZARETTA attempts to settle the dispute in regard to the date of the birth of Raphael, which has been held by some to be the 28th of March, by others

the 6th of April, 1483. An exact interpretation of the Bembo epitaph in the Pantheon indicates clearly that April 6th was the date of the birth and that Raphael was precisely thirty seven years old when he died.

Veronese's Color.—The chromatic scale of Paolo Veronese and his modern manner of combining contrasting colors are discussed by E. TEA in *L'Arte*, XXIII, 1920, pp. 59-75 (9 figs.).

Frescoes of S. Maria in Trastevere.—In *L'Arte*, XXIII, 1920, pp. 49-58 (8 figs.), L. LOPRESTI writes an appreciation of the work of Pasquale Cati da Jesi. He has not been much praised by critics that have mentioned him, but his paintings in S. Maria in Trastevere, which emulate Michelangelo in the painting of the architectural setting and the general treatment of the vault, have much of real merit in them.

Jacopo Ripanda.—In *L'Arte*, XXIII, 1920, pp. 27-48 (20 figs.), G. FIOCCO calls attention to the forgotten Bolognese painter, Jacopo Ripanda, one of the disciples of Francia and Costa. He enjoyed great popularity in the early years of the sixteenth century and exercised not a little influence on his contemporaries. His connection with Marcantonio Raimondi is especially close. Jacopo was primarily a painter of triumphs, as the paintings of scenes from the Punic Wars in the Palazzo dei Conservatori, Rome, testify.

The Capitoline Wolf.—In *L'Arte*, XXII, 1919, pp. 133-135 (fig.), A. VENTURI gives stylistic evidence for the authorship of the bronze figures of Romulus and Remus under the Lateran wolf, which was one of the objects procured by Sixtus IV for the collection of antiquities in the Palazzo dei Conservatori. The anatomical treatment of the twins, the elastic tension of their bodies, mark them clearly as creations of the hand of Antonio Pollajuolo.

Antonio Pollajuolo and Ancient Ceramics.—In *Art Bulletin*, II, 1919, pp. 78-86 (5 pls.), F. R. SHAPLEY points out characteristics in the work of Antonio Pollajuolo which indicate that he was familiar with and was largely influenced by designs on Greek and Arretine pottery.

Florentine Furniture Panels.—In *Art in America*, VIII, 1920, pp. 148-159 (3 pls.) F. J. MATHER, Jr., writes on three Florentine furniture panels. Stylistic evidence is offered for the attribution of the Medici *desco* in the New York Historical Society to the *bottega* of Domenico Veneziano. A chest-front in the Stibbert Museum, Florence, representing the legend of Trajan and the Widow, is here published for the first time and attributed to Castagno (or possibly his school) as a work of about 1460. Finally, a cassone panel in the Holden collection, Cleveland Museum of Art, which gives a lively picture of a horse race, is considered to be the work of the school of Uccello, as it was formerly labelled.

Alla Porcellana Pottery.—In *Faenza*, VII, 1919, pp. 49-59 (7 pls.), G. BALLARDINI discusses the origin of the designs on a certain kind of Italian pottery of the sixteenth century called *alla porcellana* because of the resemblance of a peculiar floral design that always forms part of its decoration to the flower of which the botanical name is *porcellana*. Chinese and Persian types of ships, birds, human heads, etc., that are used in conjunction with this design indicate an oriental origin for it.

Sixteenth Century Majolica Clay.—Count Francesco Caldagno, in his report to the Doge of Venice in 1598 concerning some disputed territory, mentions the excellent earth of Tretto which he says gave the white quality to the

fine majolica of Faenza; this is what is now known commercially as "terra di Vicenza." (G. Cibir, *Faenza*, VII, 1919, p. 20.)

Was Majolica made in Arezzo?—In *Faenza*, VII, 1919, pp. 33-41, A. DEL VITA answers the arguments which U. Pasqui has brought forward to prove that majolica was not made in Arezzo. That the Arezzo potters made only poorer grades of ceramics and that the examples of majolica found there in abundance all originated in other cities are assertions which the present writer seeks to disprove.

Piccolpasso.—In *Faenza*, VII, 1919, pp. 25-29, A. VAN DE PUT gives the results of an examination of the original manuscript of the "arte del vasaio" by Piccolpasso, pointing out the peculiarities in the composition of the manuscript and the slight additions that have been made by a later hand.

Sicilian Monuments.—In *L'Arte*, XXII, 1919, pp. 211-218 (9 figs.), E. MAUCERI publishes early monuments in S. Lucia del Mela and in Girgenti. In the former the two oldest remains are the Castello, of which only the tower and fragments of the enclosure still stand, and the church of the Annunziata, with its fourteenth century campanile and fifteenth century paintings. The cathedral of S. Lucia was restored in the eighteenth century but retains its beautiful fifteenth century doorway and its Madonna by Antonello Gagini, with other sculptures of the fifteenth and sixteenth centuries. The monument to De Marino is one of the most interesting objects of the fifteenth century in Girgenti. It is the work of Giovanni Gagini and Andrea Mancino.

Sicilian Art of the Renaissance.—In *Rass. d'Arte*, XIX, 1919, pp. 210-222 (14 figs.) E. MAUCERI discusses the political conditions in Sicily in the period of the Renaissance and the origins and development of its architecture, sculpture, and painting. Architecture in Sicily, deriving from Romanesque, Byzantine, and Arabic sources, maintained quite consistent characteristics through the fourteenth, fifteenth, and sixteenth centuries, not even feeling the influence of Bramante. Sculpture was early subjected to Pisan and Siennese influence, and the two great figures of the Renaissance, Domenico Gagini and Francesco Laurana, were both inspired by Tuscan grace. Early Sicilian painting, so little known to art students, shows a combination of Arabic and Tuscan features.

A Sardinian Painting.—In *L'Arte*, XXII, 1919, pp. 232-242 (4 figs.), E. BRUNELLI shows that the painting of a Madonna in the Birmingham gallery attributed by A. B. Chamberlain in 1909 to Bartolomé Bermejo is the work of a Sardinian artist. It shows a peculiar mixture of Spanish, Southern French, and Italian characteristics, with a predominance of the influence of Antonello da Messina, that is characteristic of Sardinian painting in the early sixteenth century. It is by the same hand as a number of known paintings in Sardinia, notably the Madonna enthroned in the cathedral of Castelsardo.

SPAIN

"Miraflores de la Sierra."—A town in the province of Madrid, which changed its name in 1627 from Porquerizas to Miraflores, is the subject of a study by F. P. MINGUEZ in *B. Soc. Esp.* XXVIII, 1920, pp. 5-23 (3 pls.). The treasures of the parochial church are specially noteworthy; they include sculptures and paintings for which documents furnish exact dates in the sixteenth century and later.

The Palace of Cervellón.—In *B. Soc. Esp.* XXVII, 1919, pp. 172-179 (4 pls.) A. V. y GOLDONI reproduces among other things in the art collection of the palace of Cervellón a beautiful Gothic tapestry, a drawing attributed to Murillo, and some sixteenth century ceramics.

Palace of the Dukes of Medinaceli.—Paintings by Luca Giordano and Murillo, a tapestry signed by David Teniers, and important pieces of fifteenth and sixteenth century armor are among the objects of art in the palace of the dukes of Medinaceli described by J. M. DUSMET y ALONSO in *B. Soc. Esp.* XXVIII, 1920, pp. 49-56 (4 pls.)

FRANCE

The Bust of a Bishop.—The bust of a bishop in the Walters collection, Baltimore, is attributed by C. R. MOREY in *Art in America*, VIII, 1920, pp. 51-58 (pl.) to the early period of the Champagne school, before it gave way entirely to Italian taste. Its relationship is so close to the statues of the Tomb of Saint-Remi, Reims, as to localize it in the same atelier and give it approximately the date of that monument, 1533-1537. Indeed, it seems likely that the Walters bust is a fragment of one of the original statues of the monument and that a nineteenth century copy now takes its place there.

BELGIUM AND HOLLAND

The Tapestries of the "Chasses de Maximilien."—In an extensive study of the sixteenth century Flemish tapestries in the Louvre known as the "Chasses de Maximilien" and representing hunting scenes in the various months of the year, P. ALFASSA (*Gaz. B.-A.* I, 1920, pp. 126-140 and 233-256; 2 pls.; 12 figs.) traces their history and shows their relation not only to painting in general of their time, but especially to landscape painting.

A Flemish Tapestry.—In *Art in America*, VIII, 1920, pp. 47-51 (pl.) S. RUBENSTEIN publishes a Flemish tapestry in the collection of Mr. Alexander Hamilton Rice, which may be dated, from the style of the costumes and of the composition as a whole, in about 1510, just at the transition between the Gothic and Renaissance periods. Comparison with tapestries signed by Jean de Rome suggests that he may be the originator of this design of a hunting scene.

Cornelis Vroom.—A landscape signed by an important predecessor of Jacob Ruisdael, Cornelius Vroom, is published by A. BREDIUS in *Burl. Mag.* XXXV, 1919, p. 261 (pl.). It is in the collection of Mr. Robert C. Witt.

Rembrandt and Contemporary Humanists.—In *Jb. Preuss. Kunsts.* XLI, 1920, pp. 46-81 (pl.; 3 figs.), H. KAUFFMAN publishes a study of Rembrandt's painting in the light of the humanistic poetry of his time, explains the sudden change in the subject matter of the artist's paintings when he went to Amsterdam, and the peculiar nature of that subject matter in the Amsterdam period. In Amsterdam Rembrandt was associated with a circle of humanistic scholars and poets, and his biblical and mythological pictures are clearly the pictorial expression of their versions of the Old Testament and the Classics, rather than of the originals. The *Trouwing* of Jacob Cats, especially, explains Rembrandt's attitude toward the various Biblical and mythological subjects which he represents.

GREAT BRITAIN

Ancient English Wall Paintings.—In *Burl. Mag.* XXXV, 1919, pp. 246–252 and XXXVI, 1920, pp. 84–87 (2 pls.; fig.) P. TURPIN publishes some wall-paintings uncovered several years ago in the Charterhouse, Coventry dating from the fifteenth and sixteenth centuries. They are in a very fragmentary state, a detail of the later painting now appearing in the middle of the earlier. What remains is part of a fifteenth century crucifixion with other figures, and part of a middle sixteenth century decorative, ornamental and heraldic design.

AMERICAN ARCHAEOLOGY

GENERAL AND MISCELLANEOUS

Village Sites East of the Mississippi.—In *Bulletin 69* of the Bureau of American Ethnology DAVID I. BUSHNELL, Jr., publishes an account of the inhabitants of the eastern United States at the time of the discovery of America and then discusses villages and village sites. He shows by abundant quotations from old documents the character of the buildings in the villages of different Indian tribes. [*Native Villages and Village Sites East of the Mississippi*. (Bureau of American Ethnology, Bulletin 69.) Washington, 1919, Government Printing Office. 111 pp.; 17 pls.; 12 figs. 8 vo.]

Ojibway Buildings.—In the *Annual Report* of the Smithsonian Institution for 1917, pp. 609–617 (pls.) DAVID I. BUSHNELL, Jr. describes dwellings and other structures of the Ojibway Indians. The dome-shaped wigwam was the common type of dwelling. Illustrations of this, and of the conical wigwam, as well as of other buildings are given from photographs made in northern Minnesota.

The Iroquois Indians.—In the *Thirty-first Annual Archaeological Report* of the Ontario Provincial Museum, 1919, pp. 9–55 (9 figs.) R. B. ORR gives a general account of the Iroquois Indians, their history, manner of life, etc., down to the present time. He estimates that there are still living about 1700 Iroquois.

Methods of Burial among American Indians.—In the *Thirty-first Annual Archaeological Report* of the Ontario Provincial Museum, 1919, pp. 56–77 (8 figs.) C. B. ORR discusses the different methods of burial employed by the American Indians.

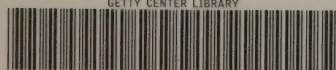
Mummified Jivaro Heads.—In *Mus. J.* X, 1919, pp. 173–183 (colored pl.; 2 figs.) W. C. F(ARABEE) discusses the practice among the Jivaros of South America of taking the heads of their enemies, the method by which the head is mummified and preserved, and the attendant ceremonies.

Miscellaneous Papers.—In the *Thirty-third Annual Report* of the Bureau of American Ethnology for 1911–12 (Washington, 1919) the following papers are of interest to students of American archaeology. Pp. 53–154 (32 pls.) M. R. GILMORE discusses the uses of plants by the Indians of the Missouri River region; pp. 155–206 (44 pls.; 11 figs.) E. H. MORRIS publishes a 'Preliminary Account of the Antiquities of the Region between the Mancos and La Plata Rivers in Southwestern Colorado'; pp. 207–284 (15 pls.; 101 figs.) J. WALTER FEWKES discusses the designs on prehistoric Hopi pottery.

The Tunica, Chitimacha and Atakapa Languages.—JOHN R. SWANTON has published a study of three little known American languages, the Tunica, Chitimacha and Atakapa, once spoken in parts of Mississippi, Louisiana and Texas. All the available material from old documents is summarized, and comparative vocabularies published. The study is philological, but of interest to students of American archaeology. [*A Structural and Lexical Comparison of the Tunica, Chitimacha and Atakapa Languages.* (Bulletin 68 of the Bureau of American Ethnology.) By John R. Swinton, Washington, 1919, Government Printing Office. 56 pp. 8 vo.]



GETTY CENTER LIBRARY



3 3125 00092 5558

